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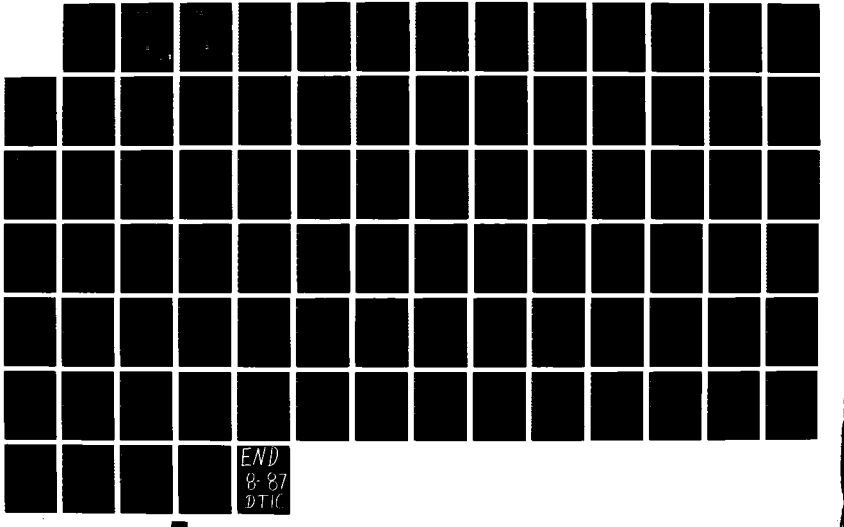
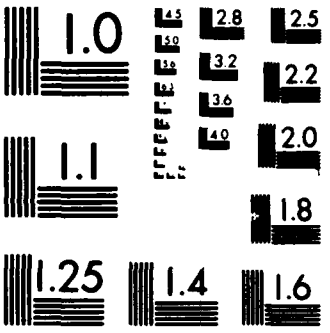
TECHNICAL SUPPORT GROUP R L SCHROEDER ET AL. 07 DEC 84
UNCLASSIFIED GRC-1422-06A-84-CR MDA903-84-C-0117 F/G 12/5 NL





Report 1422-06A-84-CR

Civilian Manpower Cost Controls Automated Data System

Functional Description

By:

Robert L. Schroeder, Project Manger
Larry E. Bradley
John J. Durant

Contract Number MDA903-84-C-0117
Item No. 0002AH

MANAGEMENT TECHNOLOGIES DIVISION

GENERAL RESEARCH CORPORATION

A FLOW GENERAL COMPANY

7655 Old Springhouse Road, McLean, Virginia 22102

Submitted To:

Office of the Comptroller of the Army
(Operation and Maintenance, Army)
Program Budget Division
Attn: Mrs. Jean S. Rogers
Room 3B666, the Pentagon
Washington, D.C. 20310

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CONTENTS

SECTION		PAGE
1	GENERAL	1-1
	1.1 Purpose of the Functional Description	1-1
	1.2 Project References	1-1
	1.3 Terms and Abbreviations	1-3
2	SYSTEM SUMMARY	2-1
	2.1 Background	2-1
	2.2 Objective	2-2
	2.3 Existing Methods and Procedures	2-3
	2.4 Proposed Methods and Procedures	2-18
	2.5 Assumptions and Constraints	2-33
3	DETAILED CHARACTERISTICS	3-1
	3.1 Specific Performance Requirements	3-1
	3.2 Functional Area System Functions	3-2
	3.3 Inputs-Outputs	3-3
	3.4 Data Base Characteristics	3-4
	3.5 Failure Contingencies	3-4
	3.6 Security	3-4
4.	DESIGN DETAILS	4-1
	4.1 System Description	4-1
	4.2 System Functions	4-1
	4.3 Flexibility	4-9
	4.4 System Data	4-10
5	ENVIRONMENT	5-1
	5.1 Equipment Environment	5-1
	5.2 Support Software Environment	5-3
	5.3 Interfaces	5-4
	5.4 Summary of Impacts	5-5

CONTENTS

(Continued)

SECTION		PAGE
	5.5 Failure Contingencies	5-5
	5.6 Security	5-6
	5.7 Assumptions and Constraints	5-7
6	COST FACTORS	6-1
	6.1 Introduction	6-1
	6.2 System Development Costs	6-1
	6.3 System Implementation Costs	6-2
	6.4 System Operation Costs	6-2
7	SYSTEM DEVELOPMENT PLAN	7-1
APPENDIX		
A	WORK STATEMENT	A-1
B	WORK STATEMENT MODIFICATION	A-2

FIGURES

NUMBER		PAGE
2.1	Present Procedures Flow Diagram	2-4
2.2	Audit Trail by ACTNO Report	2-8
2.3	MPDI Detail Worksheet	2-9
2.4	MPDI Summary Worksheet	2-10
2.5	MPDI Controls	2-12
2.6	OMA Ledger Controls	2-17
2.7	DF to P/SP Directors	2-19
2.8	Proposed Procedures Flow Diagram	2-26
4.1	Funded Detail Transactions (Screen #1)	4-2
4.2	MPDI Summary (958) Transactions (Screen #2)	4-3
4.3	MPDI Summary (958) Transactions by Cost Category (Screen #3)	4-6

TABLE

4.1	Size of Data Elements Fields	4-15

SECTION 1

GENERAL

1.1 Purpose of the Functional Description

This functional description (FD) for Civilian Manpower Cost Controls Automated Data System (ADS) (prepared under Contract Number MDA903-84-C-0117, 10 February 1984) is written to provide:

- The civilian manpower cost controls system requirements which must be satisfied to serve as a basis for mutual understanding between the user and the developer.
- Information on performance requirements and data sources for development of formats of civilian manpower cost controls for hard copy and CRT displays which will provide cost controls data in detail and summary levels.
- A basis for development of automated procedures to display, access, and update civilian personnel cost controls through remote entry devices and computer interfaces.

1.2 Project References

This FD is one of a series describing procedures for the automation of civilian manpower costing reports under the terms of the performance schedule required by the contract. Each FD draws from related work performed under this contract to automate the civilian manpower costing functions (reference 1.2.2 aa to cc below).

The project sponsor is the Comptroller of the Army (COA); the contracting agency is the Defense Supply Service-Washington (DSS-W); the Contracting Officer's Representataive (COR) is Mrs. Jean S. Rogers. The primary user of the automated system will be OCOA. The operating center of the system will be the United States Army Management System Support Agency (USAMSSA).

1.2.1 Contractual Documents

a. Statement of Work, "Operations Guide and Supporting Displays for the Army Budget Activities for Civilian Personnel," as incorporated in Contract Number MDA903-84-C-0117, DSS-W, General Research Corporation, McLean, Virginia, 10 February 1984 (Appendix A).

c. Statement of Work as incorporated in modification no. 1 to Contract Number MDA903-84-C-0117, General Research Corporation, McLean, Virginia, 14 March 1984 (Appendix B).

1.2.2 Reference Documentation

a. DOD Directive 5100.73, "DOD Management Headquarters and Headquarters Support," 12 March 1981.

b. Department of Defense Standard 7935 (DOD-STD-7935), 15 February 1983.

c. OMB Circular A-11, Subject: "Preparation and Submission of Budget Activities," July 1983.

d. DOD Budget Guidance Manual, DOD 7110-1-M.

e. Memorandum, OSD, Subject: "FY 1984 Revised and 1985 Budget Estimates Guidance," July 1983.

f. AR 10-5, Organization and Functions, Department of the Army.

g. AR 18-1, Army Automation Management.

h. AR 37-15, Budget Development and Review.

i. AR 37-100, Account/Code Structure, Financial Administration.

j. AR 37-100-XX, The Army Management Structure.

k. AR 570-4, Manpower Management, Manpower and Equipment Control.

l. AR 570-8, Army Management Headquarters Activities (AMHA).

m. CSR 5-3, Management of the FORDIMS.

n. CSR 10-23, Organization and Functions, Office of the Comptroller of the Army.

o. CSR 11-6, Army Programs, Program and Budget Guidance.

p. CSR 11-7, Staff Responsibilities for the Army Management Structure Code Data Base.

q. CSR 15-1, Boards, Commissions, and Committees, Program and Budget Committee.

r. CSR 18-11, Force Development Management Information System.

s. CSR 37-4, Financial Administration, Army Staff Budget Responsibilities.

t. CSR 570-5, Determination and Presentation of Civilian Manpower Requirements.

u. Memorandum 18-4, HQDA 18 March 1976, Subject: Automatic Data Processing Support from the USAMSSA.

v. Letter DACA-BUF, HQDA Subject: "Department of the Army Budget Directive, 5 July 1983.

w. Volume I, FORDIMS User's Guide, August 1980

x. Volume II, FORDIMS User's Guide, April 1979.

y. Functional Description, "OP-32 Automated Data System," General Research Corporation, 6 September 1983 (Contract Number MDA-903-83-M-7399), Item No. 0001AA).

z. Functional Description, "PB-22 Automated Data System" General Research Corporation, 7 October 1983 (Contract Number MDA903-83-M-7399, Item No. 0001AB).

aa. "Work Flow Charts for the Civilian Manpower Costing Process," General Research Corporation, 12 March 1984 (Contract Number MDA903-84-C-0117, Item No. 0002AA)

bb. "CRT Screen Formats Supporting the Civilian Manpower Costing process," General Research Corporation, 9 April 1984 (Contract Number MDA903-84-C-0117, Item No. 0002AB).

cc. "Operations Guide for Civilian Manpower Costing," (Draft), General Research Corporation, undated (Contract Number MDA903-84-C-0117, Item Nos. 0002AD and 0002AJ).

1.3 Terms and Abbreviations

The definitions of terms, abbreviations, and acronyms used in this document are listed in reference 1.2.2cc above.

Section 2
SYSTEM SUMMARY

2.1 Background

The Planning, Programing, Budgeting and Execution System (PPBES) is the vehicle by which the Army requests and uses resources in support of the Army's mission. Manpower is one of the most critical of Army resources and a key partner is the civilian work force. Maintanance of the large professional civilian work force necessary to meet civilian manpower requires controlled use of the Army's dollar resources.

For each programing and budgeting position in the PPBES cycle, ledger controls (for the Operation and Maintenance, Army (OMA) appropriation) must be developed, published and disseminated to the program/subprogram (P/SP) directors. The manpower related controls are developed by DACA-OMP and provided to the Appropriation Controls Team, which publishes the ledger controls for the P/SP directors. DACA-OMP develops summary level and detailed controls. The summary level controls are furnished to the Appropriation Controls Team for inclusion in the OMA overall ledger controls document. The detailed information is forwarded to the P/SP directors for budget development.

Development of the controls involves the funding of manpower transactions and the adjustment of funds based on additional manpower resource transactions since the previous program/budget positions. These transactions result from decisions of the Congress, OSD and the Army leadership, corrections to previously submitted transactions, miscellaneous reprograming by the ARSTAF, etc. These changes occur throughout the PPBES cycle, e.g. POM, PDM, etc.

In order to adjust to these funding changes, DACA-OMP maintains an account of funds which can be added to or drawn on. This is referred to as the Manpower Program Decrease/Increase (MPDI) withhold (958) account. These funds are identified with specific P/SP. Adjustment of funds within programs is referred to as "internal realignment".

Adjustment of funds between major programs is referred to as "program realignment". Due to Congressional restrictions adjustments of funds between major programs (program realignment) are limited to specific threshold amounts in the current year (CY) and budget year (BY).

P/BS reflects the funded level for each program based on live approved manpower resource transactions (ACTNOs) entered into the system. The difference between the aggregate of all approved ACTNOs for each P/SP by FY ("funded account") and the amount of funds budgeted for those FYs is the balance in the MPDI account. Additional funds accrue to the MPDI account as a result of manpower reductions or cost adjustments. Thus the MPDI account becomes (within the limitations imposed by Congress in the CY and BY) a source of funds to meet other funding requirements. Approved funding is provided to P/SP directors in the form of "controls" which are issued in varying levels of detail. Additionally, DACA-OMP maintains cognizance over the MPDI account through the use of MPDI reports.

2.2 Objective

The automation of the system for development of civilian manpower cost controls is required to eliminate the manual extraction of data from automated reports, preparation of work sheets, and manual computation and transfer of data within and between work sheets. The automated system must be designed to accept and process data that are both input through a remote terminal in OCOA and derived from FORDIMS-P/BS. It must compute, manipulate and print data in formats suitable for use by members of the ARSTAF. Specific objectives are to:

a. Reduce the amount of work required through elimination of preparation of work sheets, manual posting of data, and computation of values.
b. Reduce errors/enhance accuracy.
c. Reduce needs for production reports.
d. Enhance credibility with reports users.
e. Provide the means for additional analytical work.

f. Allow more timely submission of program/budget documents.

g. Provide more effective management of the civilian manpower costing functions.

h. Provide an audit trail of civilian manpower cost control changes.

i. Maximize utilization of existing data in the FORDIMS-P/BS data base.

2.3 Existing Methods and Procedures

2.3.1 General

The existing procedures for developing civilian manpower cost controls are, primarily, manual. They entail extracting data from automated reports, posting these data to manually prepared work sheets, computing data totals, transferring data between work sheets and adjusting data to meet established criteria. Once the data are developed on the work sheets, they are entered into a WANG word processor where additional computations are made and hard copy printouts of controls are generated.

These controls are used to develop OMA summary level ledger controls for P/SP directors. Additionally, the funded detail level controls are provided the P/SP directors as an audit trail for changes. P/SP directors use these controls to update the Program Budget System (PBS) in order to prepare the OSD and President's budgets.

The current manual system requires 2 analysts working 3 to 4 days in DACA-OMP to prepare and distribute the controls to the Appropriation Controls Team and the P/SP directors.

A flow diagram depicting the procedures followed in developing the cost controls is at Figure 2.1. The numbers in the parentheses correspond to the steps in the processing procedures summarized below.

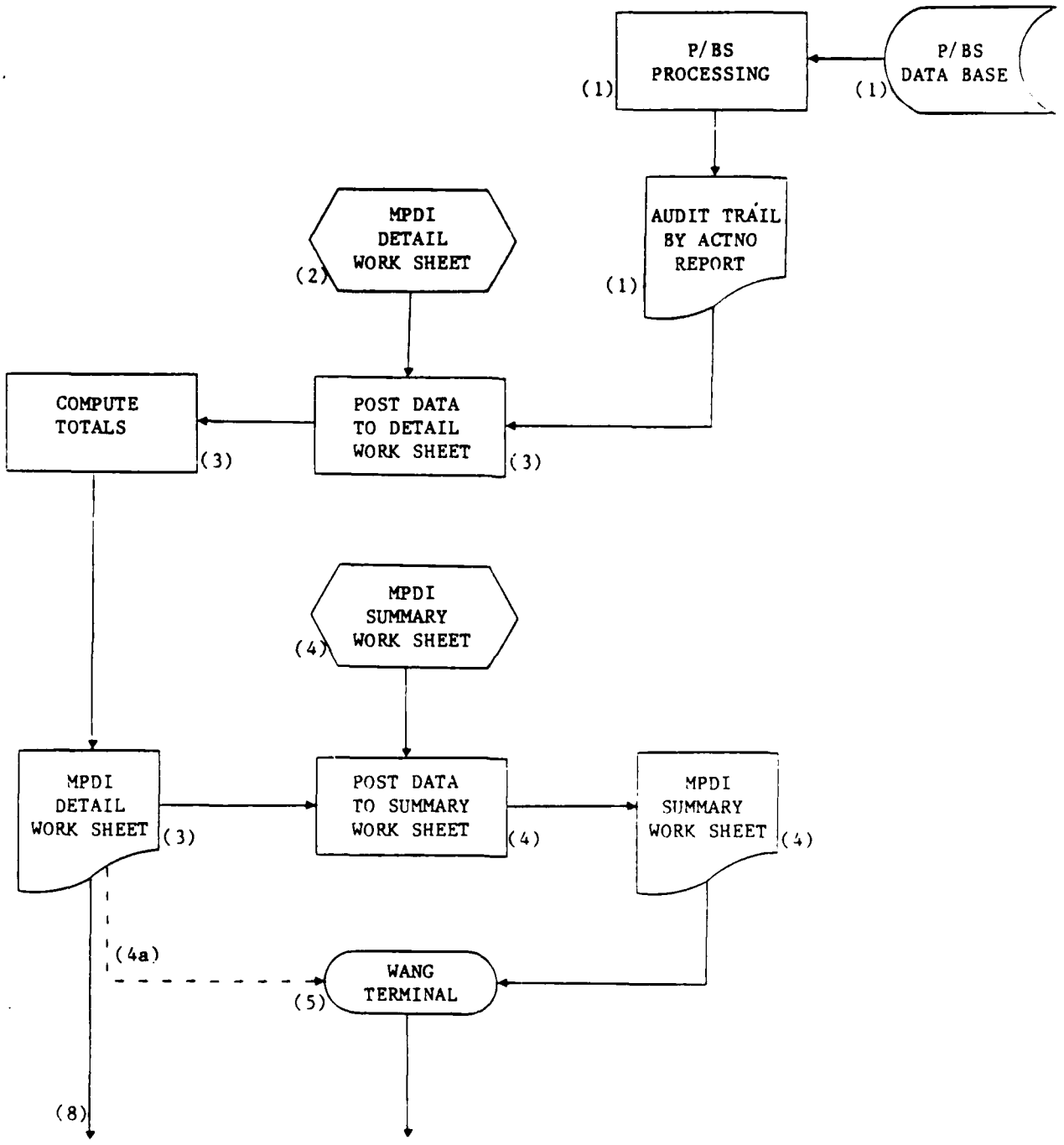

Figure 2.1. Development of Civilian Manpower Cost Controls (Present Procedures) Flow Diagram

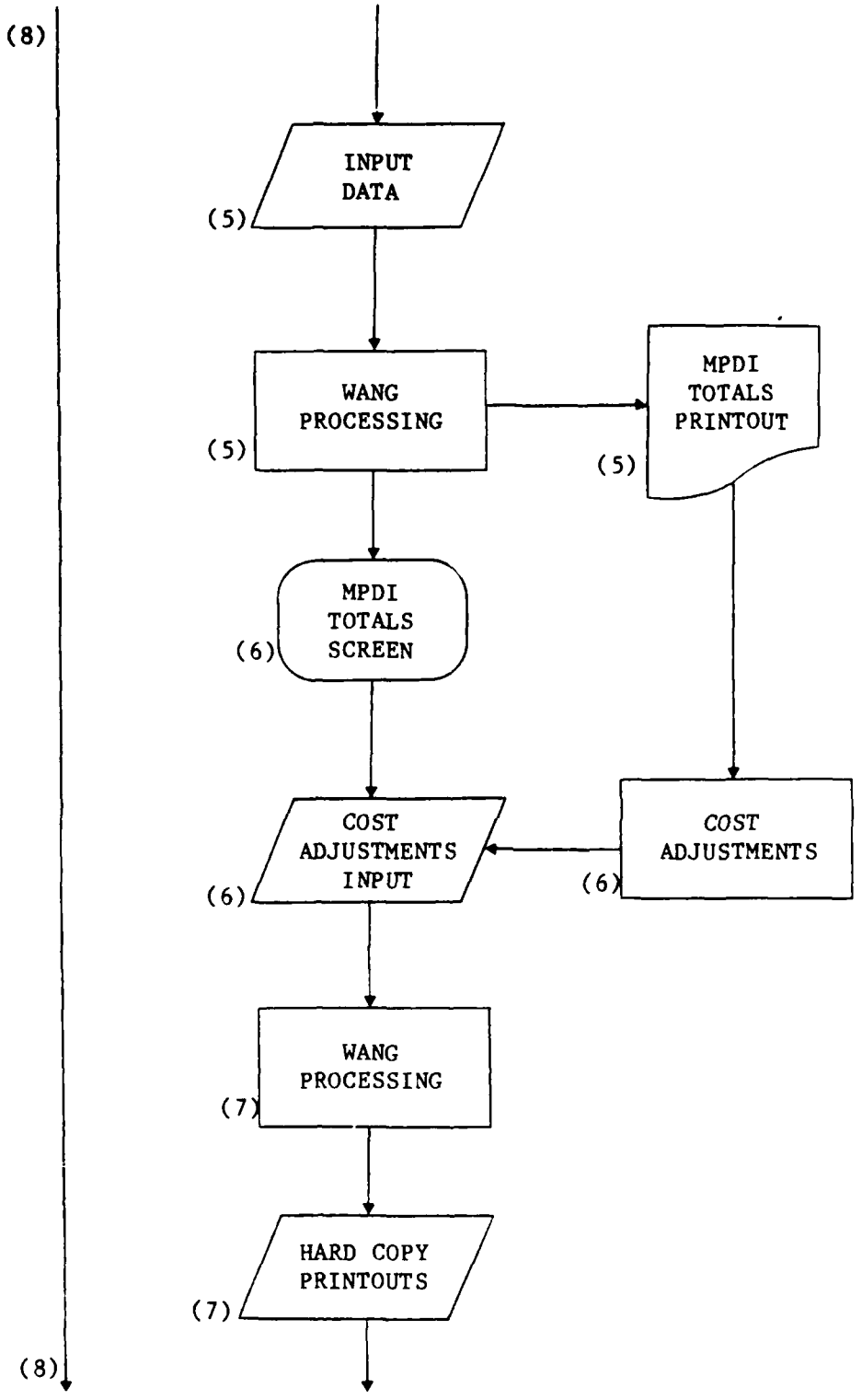

Figure 2.1 (Cont.). Development of Civilian Manpower Cost Controls (Present Procedures) Flow Diagram

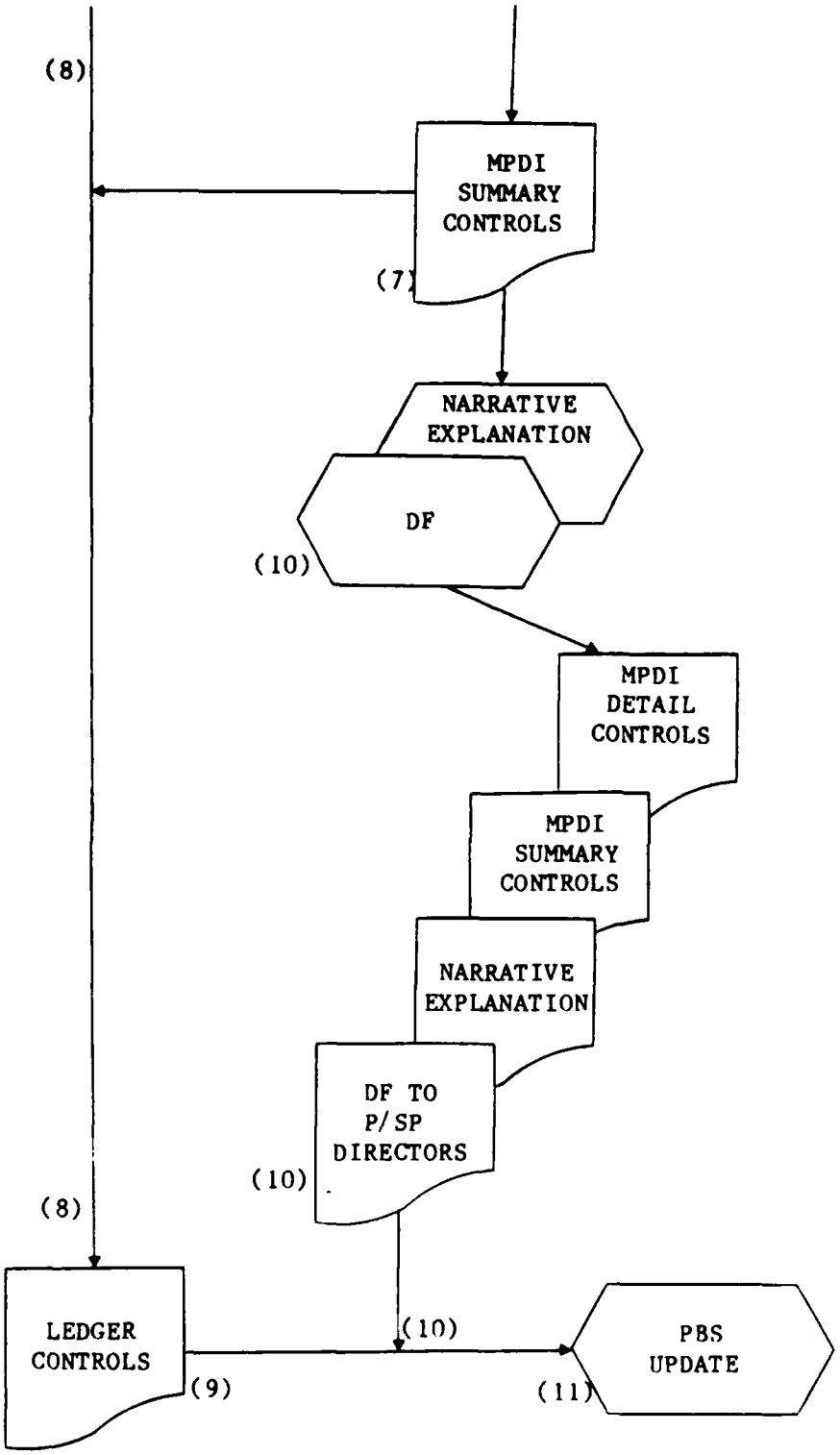

Figure 2.1 (Cont.). Development of Civilian Manpower Cost Controls (Present Procedures) Flow Diagram

2.3.2 Preparation of Controls Work Sheets

Step 1

The Audit Trail by ACTNO Report (RK5_516) (Figure 2.2) generated in FORDIMS-P/BS is received by DACA-OMP from USAMSSA after the live approval of ACTNOs submitted by DAPE-MBA or DAPE-MBC.

Step 2

An MPDI Detail Work Sheet is prepared in a format (shown in Figure 2.3) which provides separate entries for each ACTNO by P/SP. A separate work sheet is prepared for each funded issue that will be shown in the ledger controls.

Step 3

The values in the "TOTAL COMP" field of the Audit Trail by ACTNO Report for each P/SP by MSN, BOS(-), and RPMA are listed on the work sheet. When the dollar values for all ACTNOs have been recorded, the values of the individual ACTNOs are added by P/SP to determine the P/SP totals, which are recorded on the top line of the work sheet. Separate totals are determined for MSN, BOS(-), and RPMA. The P/SP totals are added together to obtain the total OMA funding required for each issue and recorded in the TOTAL column on the left side of the work sheet.

Step 4

The dollar amounts calculated on the work sheet described in Step 3 are consolidated by major issue and recorded on an MPDI Summary Work Sheet, shown in Figure 2.4. The consolidated figures for each issue are shown for each P/SP and totalled. This work sheet provides the MSN, BOS(-), and RPMA breakout of costs used in the previous detail sheets.

Step 4a

Since the data are subsequently input directly from the work sheet to the WANG, it is not always necessary to prepare the MPDI Summary Work Sheet. The data can be input directly from the totals line and column on the detail work sheets. In general, the number of issues involved, time available to the analyst, and experience of the analyst governs whether the MPDI Summary Work Sheet is prepared.

AUDIT TRAIL BY ACTIVITY
AUDIT TRAIL OF ACTNO
FYEAR - 1986 ACTNO - 041451

APPRN	P	B	R	AMSCO	PCOMD	CTYPE	AUCIV	AUMIP	AUMTR	BCOMP	OTHR	EBENE	FECMP	SVPAY	TOTAL COMP
ACTNO - 041451 BAGUD - PBSA FY 86-90 POM															
TRPLN - PBSA POM DECISION TO UNRESOURCE PDIP IN FY86-90 POM															
OMA	02			20001500000	3220	101	3	3	3	71	0	10	0	0	83
OMA	02			20001500000	3220	122	1	1	1	51	0	5	0	0	56
OMA	02			20001500000	3220		4	4	4	124	0	15	0	0	139
OMA	02			20001500000	3236	101	1	1	1	23	1	3	0	0	27
OMA	02			20001500000	3236		1	1	1	23	1	3	0	0	27
OMA	02			20001500000			5	5	5	147	1	18	0	0	166
OMA	02			20019010000	3226	101	3	3	3	65	0	12	0	0	97
OMA	02			20019010000	3226	122	3	3	3	155	0	16	0	0	168
OMA	02			20019010000	3226		6	6	6	237	0	28	0	0	268
OMA	02			20019010000			6	6	6	237	0	28	0	0	268
OMA	02						33	33	33	386	1	46	0	0	431
OMA	07	B		72202920000	2601	101	7	7	7	151	2	23	0	0	176
OMA	07	B		72202920000	2601	122	1	1	1	94	0	5	0	0	65
OMA	07	B		72202920000	2601		8	8	8	195	2	28	0	0	225
OMA	07	B		72202920000	3227	101	2	2	2	45	0	7	0	0	55
OMA	07	B		72202920000	3227	122	1	1	1	51	0	7	0	0	60
OMA	07	B		72202920000	3227		3	3	3	101	0	14	0	0	115
OMA	07	B		72202920000			11	11	11	296	2	42	0	0	340
OMA	07	B		72209100000	2601	101	109	71	109	1651	28	267	0	0	1976
OMA	07	B		72209100000	2601	102	170	117	170	3241	42	451	0	0	3734
OMA	07	B		72209100000	2601	103	3	3	3	21	0	3	0	0	26
OMA	07	B		72209100000	2601	104	8	7	8	81	2	11	0	0	96
OMA	07	B		72209100000	2601	105	5	0	5	43	0	9	0	0	52
OMA	07	B		72209100000	2601	109	2	0	2	42	0	17	0	0	59
OMA	07	B		72209100000	2601	110	15	0	15	193	7	24	0	0	224
OMA	07	B		72209100000	2601	120	22	0	22	413	25	51	0	0	510
OMA	07	B		72209100000	2601	122	2	2	2	94	0	13	0	0	107
OMA	07	B		72209100000	2601		336	200	336	5443	104	846	0	0	6793
OMA	07	B		72209100000			336	200	336	5443	104	846	0	0	6793

Figure 2.2. Audit Trail by ACTNO Report

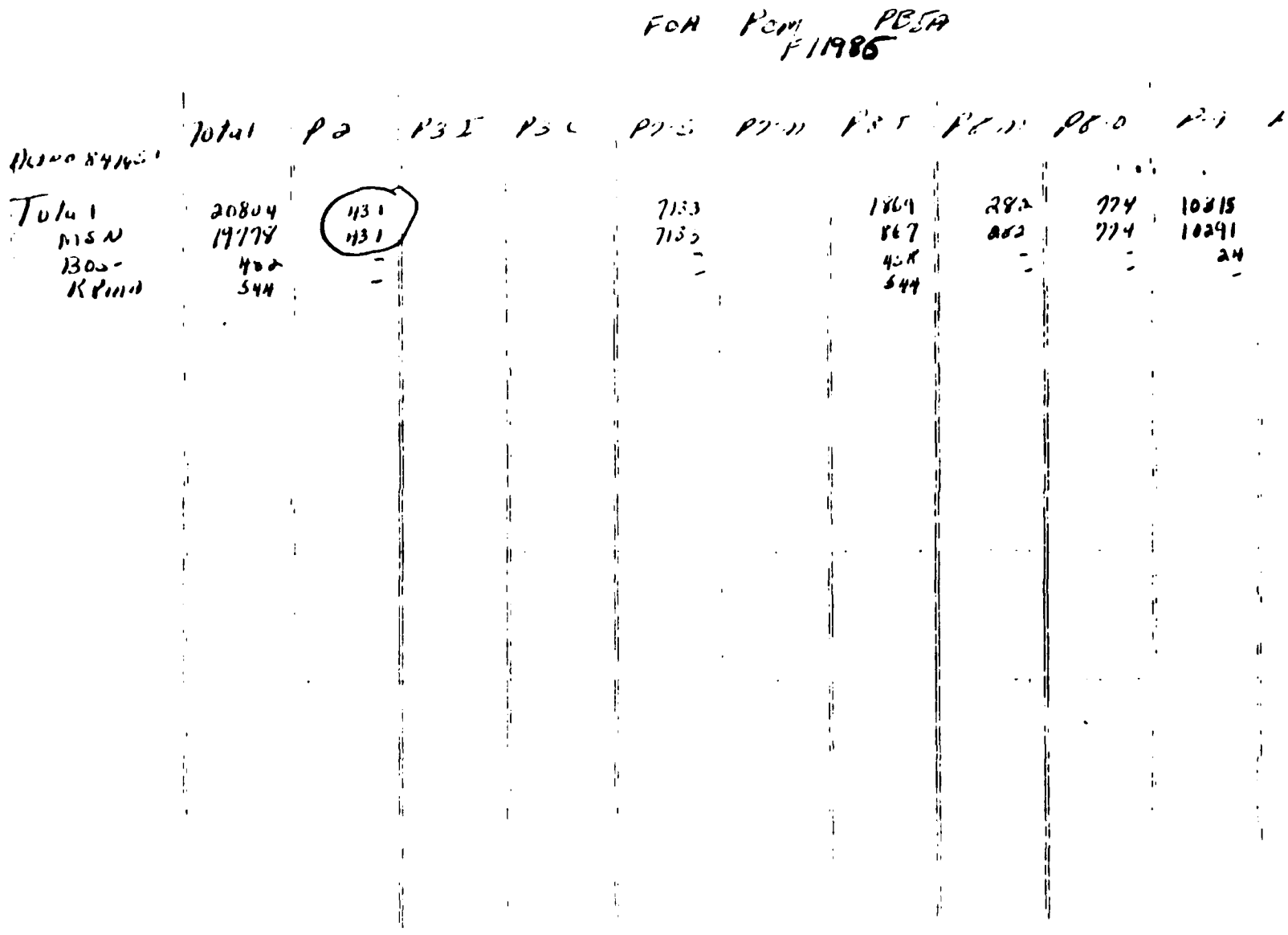

Figure 2.3. MPDI Detail Worksheet

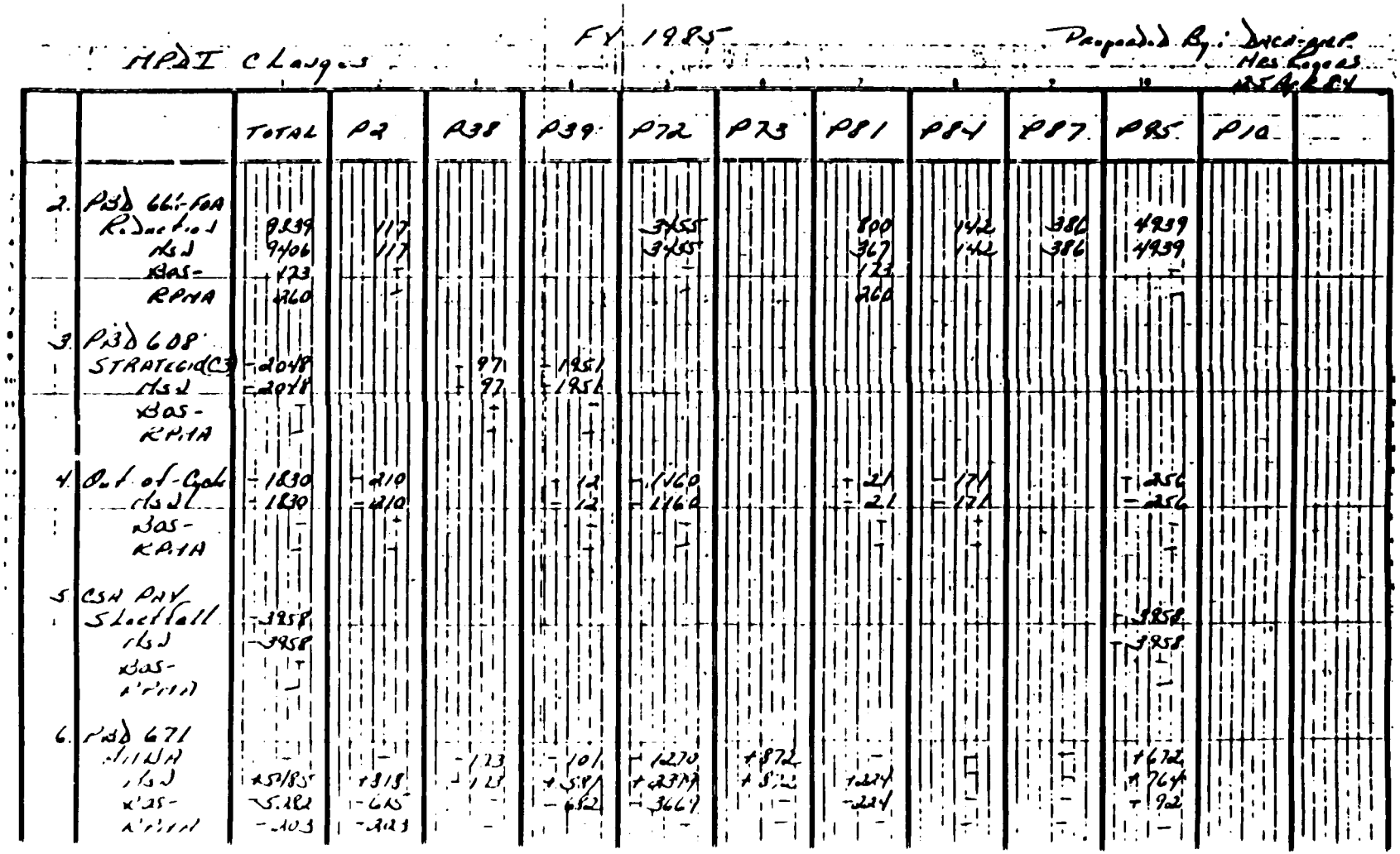

Figure 2.4. MPDI Summary Worksheet

2.3.3 Making the MPDI Adjustments

Step 5

After the work sheets are completed, the data are entered into the WANG. A program on the Wang is used to compute the MPDI totals by P/SP by MSN, BOS(-), and RPMA for each issue and for the FY using the previous MPDI position as a start point. A printout of these totals is published.

Step 6

Based on the FY P/SP totals, a DACA-OMP analyst adjusts the MPDI totals on the printout to remove negative balances within P/SP by moving resources between MSN, BOS(-), and RPMA ("Internal Realignment") or eliminate negative balances in MPDI between major programs in the outyears ("Program Realignment"). Once these adjustments are made, a WANG screen displaying the totals is called up and the adjusted data entered.

Step 7

After all adjustments have been completed, the data are processed in the WANG and new MPDI controls are printed. An example of the controls for FY86 is at Figure 2.5.

2.3.4 Distribution of Ledger Controls

Step 8

Copies of the MPDI Detail Work Sheet and the MPDI Summary Work Sheet showing the breakout by ACTNO and the MPDI are provided to the Appropriation Controls Team. The Appropriation Controls Team incorporates the information on these work sheets into the ledger controls. An example of the ledger controls for FY86 is at Figure 2.6.

Step 9

The OMA ledger controls are provided to the P/SP directors by the Appropriation Controls Team.

REPORT DATE 08/18/84 — PAGE 1

OPERATION AND MAINTENANCE, ARMY
FY86 CHECK SHEET FOR MPDI MANPOWER FUNDS
POM POSITION TO OSD BUDGET - IN 000'S OF DOLLARS

ISSUE NUM	TYPE	CATEGORY	ISSUE	TOTAL	P2	P38	P39	P72	P73	P81	P84	P87	P99	P10
1M	M	MSN	OSD START POINT	58969	7939-	564-	3702-	31296	4337	16155	12636	395	10310	3955-
1B	B	BOS(-)	OSD START POINT	16585	19820	3	450-	2607-		45	711-		485	
1R	R	RPMA	OSD START POINT	5439	5118		49-	70-		427	13			
			SUBTOTAL	80993	16999	561-	4201-	28619	4337	16627	11938	395	10795	3955-
2M	M	MSN	REALIGNMENT INTERNAL	6554	9939	3		2677-			711-			
2B	B	BOS(-)	REALIGNMENT INTERNAL	6624-	9939-	3-		2507			711			
2R	R	RPMA	REALIGNMENT INTERNAL	70				70						
			SUBTOTAL											
3M	M	MSN	MEDICAL PAY SHORTFALL	16887-						4962-	11925-			
3R	R	RPMA	MEDICAL PAY SHORTFALL	13-							13-			
			SUBTOTAL	16900-						4962-	11938-			
4M	M	MSN	MAJOR PROGRAM REALIGNMENT			561	5000	5561-		3955-				3955
4B	B	BOS(-)	MAJOR PROGRAM REALIGNMENT		450-		450							
4R	R	RPMA	MAJOR PROGRAM REALIGNMENT		49-		49							
			SUBTOTAL		499-	561	5499	5561-		3955-				3955
5M	M	MSN	ACC MANYEAR PAY SHORTFALL	3900-			3900-							
			SUBTOTAL	3900-			3900-							
6M	M	MSN	FOA POM PB5A RESTORAL	19778-	431-			7133-		867-	282-	774-	10291-	
6B	B	BOS(-)	FOA POM PB5A RESTORAL	482-						458-			24-	
6R	R	RPMA	FOA POM PB5A RESTORAL	544-						544-				
			SUBTOTAL	20804-	431-			7133-		1869-	282-	774-	10315-	
7M	M	MSN	FOA REDUCTION - 1646	29554	641			328		4982	1004		22599	
			SUBTOTAL	29554	641			328		4982	1004		22599	
8M	M	MSN	FOA RESTORAL + 751	13670-	425-			2563		3769-	123-		11916-	
			SUBTOTAL	13670-	425-			2563		3769-	123-		11916-	
9M	M	MSN	DIRECTED ACTIONS	38-				38-						
			SUBTOTAL	38-				38-						
10	M	MSN	MISC ARSTAFF REPROG	427-	198-	187-	61-				311-		330	
			SUBTOTAL	427-	198-	187-	61-				311-		330	

Figure 2.5. MPDI Controls

OPERATION AND MAINTENANCE, ARMY
FY86 CHECK SHEET FOR MPDI MANPOWER FUNDS
POM POSITION TO OSD BUDGET - IN 000'S OF DOLLARS

ISSUE NUM	TYPE	CATEGORY	ISSUE	TOTAL	P2	P38	P39	P12	P73	P81	P84	P87	P95	P10
11M	M	MSN	MISC ARSTAFF REPROG	1132-	1132-							626	626-	
11B	B	BOS(-)	MISC ARSTAFF REPROG	1132	1132									
			SUBTOTAL									626	626-	
12M	M	MSN	OOC DELAYED VCSA ADJ	333				695	43			405-		
			SUBTOTAL	333				695	43			405-		
13M	M	MSN	OOC JUNE CMT ACTIONS	2284-	836-		112-			62			1286-	112-
			SUBTOTAL	2284-	836-		112-			62			1286-	112-
14M	M	MSN	OOC DECREMENTS	2119	21		59	1677		17	217		128	
14B	B	BOS(-)	OOC DECREMENTS	932	477		25			405			25	
14R	R	RPMA	OOC DECREMENTS	227	227									
			SUBTOTAL	3278	725		84	1677		422	217		153	
15M	M	MSN	MAJOR PROGRAM REALIGN (2)		360	187	3500	4047-		270-		158		112
15B	B	BOS(-)	MAJOR PROGRAM REALIGN (2)		8-					8				
15R	R	RPMA	MAJOR PROGRAM REALIGN (2)		117-					117				
			SUBTOTAL		235	187	3500	4047-		145-		158		112
16M	M	MSN	7TH I.D. DECREMENTS	82-								25-	57-	
16B	B	BOS(-)	7TH I.D. DECREMENTS	2277-	2649-								372	
16R	R	RPMA	7TH I.D. DECREMENTS (1)	1000	804			196						
			SUBTOTAL	1359-	1845-			196				25-	315	
17M	M	MSN	WORKYEAR ADJUSTMENTS	4598-							4598-			
17B	B	BOS(-)	WORKYEAR ADJUSTMENTS	9360-	9360-									
			SUBTOTAL	13958-	9360-						4598-			
18M	M	MSN	7TH I.D. WK YR DECR (2)	21							21			
18B	B	BOS(-)	7TH I.D. WK YR DECR (2)	306	306									
18R	R	RPMA	7TH I.D. WK YR DECR (2)	819-	731-			88-						
			SUBTOTAL	492-	425-			88-			21			
19M	M	MSN	REALIGNMENT INTERNAL		3000		1500	8572-			4072	25	225-	200
19B	B	BOS(-)	REALIGNMENT INTERNAL		671								671-	
			SUBTOTAL		3671		1500	8572-			4072	25	896-	200
				40326	8252		2309	8639	4380	7393			9153	200

Figure 2.5. (Cont.) MPDI Controls

REPORT DATE 08/18/84

OPERATION AND MAINTENANCE, ARMY
FY86 MPDI MSN MANPOWER FUNDS TRAILS BY ISSUE
POM POSITION TO OSD BUDGET - IN 000'S OF DOLLARS

ISSUE	CATEGORY	TOTAL	P2	P38	P39	P72	P73	P81	P84	P87	P95	P10
OSD START POINT	MSN	58969	7919-	564-	3702-	31296	4337	16155	12636	395	10310	3955-
REALIGNMENT INTERNAL	MSN	6554	9939	3		2677-			711-			
MEDICAL PAY SHORTFALL	MSN	16887-						4962-	11925-			
MAJOR PROGRAM REALIGNMENT	MSN			561	5000	5561-		3955-				3955
ACC MANYEAR PAY SHORTFALL	MSN	3900-			3900-							
FOA POM P85A RESTORAL	MSN	19778-	431-			7133-		867-	282-	774-	10291-	
FOA REDUCTION - 1646	MSN	29554	641			328		4982	1004		22599	
FOA RESTORAL + 751	MSN	13670-	425-			2563		3769-	123-		11916-	
DIRECTED ACTIONS	MSN	38-				38-						
MISC ARSTAFF REPROG	MSN	427-	198-	187-	61-				311-		330	
MISC ARSTAFF REPROG	MSN	1132-	1132-							626	626-	
OOC DELAYED VCSA ADJ	MSN	333				695	43			405-		
OOC JUNE CMT ACTIONS	MSN	2284-	836-		112-			62			1286-	112-
OOC DECREMENTS	MSN	2119	21		59	1677		17	217		128	
MAJOR PROGRAM REALIGN (2)	MSN		360	187	3500	4047-		270-		158		112
7TH I.D. DECREMENTS	MSN	82-								25-	57-	
WORKYEAR ADJUSTMENTS	MSN	4598-							4598-			
7TH I.D. WK YR DECR (2)	MSN	21							21			
REALIGNMENT INTERNAL	MSN		3000		1500	8572-			4072	25	225-	200
		34754	3000		2284	8531	4380	7393			8966	200

Figure 2.5. (Cont.) MPDI Controls

REPORT DATE 08/18/84

OPERATION AND MAINTENANCE, ARMY
FY86 MPDI BOS- MANPOWER FUNDS TRAILS BY ISSUE
POM POSITION TO OSD BUDGET - IN 000'S OF DOLLARS

ISSUE	CATEGORY	TOTAL	P2	P38	P39	P72	P73	P81	P84	P87	P95	P10
OSD START POINT	BOS(-)	16585	19820	3	450-	2607-		45	711-		485	
REALIGNMENT INTERNAL	BOS(-)	6624-	9939-	3-		2607			711			
MAJOR PROGRAM REALIGNMENT	BOS(-)		450-		450							
FOA POM PB5A RESTORAL	BOS(-)	482-						458-			24-	
MISC ARSTAFF REPROG	BOS(-)	1132	1132									
OOC DECREMENTS	BOS(-)	932	477		25			405			25	
MAJOR PROGRAM REALIGN (2)	BOS(-)		8-					8				
7TH I.D. DECREMENTS	BOS(-)	2277-	2649-								372	
WORKYEAR ADJUSTMENTS	BOS(-)	9360-	9360-									
7TH I.D. WK YR DECR (2)	BOS(-)	306	306									
REALIGNMENT INTERNAL	BOS(-)		671								671-	
		212			25						187	

Figure 2.5. (Cont.) MPDI Controls

REPORT DATE 08/18/84

OPERATION AND MAINTENANCE, ARMY
FY86 MPDI RPMA MANPOWER FUNDS TRAILS BY ISSUE
POM POSITION TO OSD BUDGET - IN 000'S OF DOLLARS

ISSUE	CATEGORY	TOTAL	P2	P3A	P3B	P72	P73	P81	P84	P87	P95	P10
OSD START POINT	RPMA	5439	5118		49-	70-		427	13			
REALIGNMENT INTERNAL	RPMA	70				70						
MEDICAL PAY SHORTFALL	RPMA	13-							13-			
MAJOR PROGRAM REALIGNMENT	RPMA		49-		49							
FOA POM PB5A RESTORAL	RPMA	544-						544-				
OOC DECREMENTS	RPMA	227	227									
MAJOR PROGRAM REALIGN (2)	RPMA		117-					117				
7TH I.D. DECREMENTS (1)	RPMA	1000	804			196						
7TH I.D. WK YR DECR (2)	RPMA	819-	731-			88-						
		5360	5252			108						

Figure 2.5. (Cont.) MPDI Controls

OMA APPROPRIATION / SUB-PROGRAM CONTROLS PROGRAM 1 87 DATE 1/21/9-

ISSUE NUMBER / TITLE	FY83	FY84	FY85	FY86	FY87	FY88	FY89
0062 REVERSAL FY84 AUTHOR REPROG - CIV ENDSTR		1240					
0063 FY84 JOINT MARK - ADP LEASE/COMPETITION		2427-					
0064 FY84 JOINT MARK - ARMY C/NT PO SYS (ACES)		1000-	1000-	1000-	1000-	1000-	1000-
0065 FY84 JOINT MARK - AUDIOVISUAL SERVICES		532-	542-	542-	532-	542-	542-
0070 FY84 JOINT MARK - CONSULTANTS		500-					
0072 FY84 JOINT MARK - EXCESS/SURPLUS PROPERTY		552-					
0075 FY84 JOINT MARK - FOREIGN CURRENCY		1442-					
0087 FY84 JOINT MARK - YEAR END SPENDING		240-					
0092 TRAVEL (PBU 670)			4410-	4410-	4416-	4410-	4416-
0127 FY84 PAY RAISE/FINANCING PBU (PBU 620)		4422	6647	6813	7103	7420	7749
0131 FUEL (CIVRE) (PBU 665)			14-				
0134 EFFICIENCY REVIEWS (PBU 090)			100-	100-	100-	100-	100-
0135 CONSULTANTS STUDIES (PBU 672)			500-	434-	506-	524-	552-
0156 CIV END STRENGTH ADJ (REF OSD ISSUE 0203)		1240-					
0160 INFLATION (N-2) (PBU 620)				14-	29	43-	60-
0161 FOREIGN CURRENCY (PBU 620)			738-	890-	911-	973-	1050-

Figure 2.6. OMA Ledger Controls

2.3.5 Distribution of MPDI Controls

Step 10

The Civilian Manpower Team prepares a Disposition Form (DF) to distribute the MPDI controls to the P/SP directors. The DF includes as enclosures a narrative explanation of the civilian manpower changes, the MPDI controls, and the civilian manpower detail controls (Figure 2.7).

Step 11

The P/SP directors use these controls to update PBS and to prepare the budgets and PBG, and as an audit trail to track changes.

2.4 Proposed Methods and Procedures

2.4.1 General

The proposed procedures for automating the civilian manpower cost controls will reduce the time spent by analysts in manually extracting, posting, and computing data. Since most data used in the controls are already present in P/BS, these procedures provide for direct entry of data into the system, processing of data within the system and presentation of the data in formats usable to the analyst. The proposed procedures also provide the analyst the option of using hard copies or the CRT screen for performing MPDI cost adjustments. Inputs to the system are through the CRT terminal.

A flow diagram depicting the proposed procedures is at Figure 2.8. The numbers in parentheses in the flow diagram correspond to the steps in the procedures discussed below. The fields referred to in each step pertain to figures in Section 4. Descriptions of these fields are contained in paragraph 4.4.

a. P/BS Processing

Step 1

The analyst enters the P/BS data base on the OCOA terminal using standard data base entry procedures.

DISPOSITION FORM

For use of this form see AR 340-15; the proponent agency is TAGO.

REFERENCE OR OFFICE SYMBOL	SUBJECT
DACA-OMP	Civilian Manpower Controls for FY 1986 OSD Budget (1)

TO: SEE DISTRIBUTION | FROM: DACA-OM | DATE: 16 AUG 1984 | CMT: Mrs. Rogers/77669

1. Reference: DOMA FY 86 BUDGET MEMO 84-4, dated 17 July 1984, subject: FY 1985/1986 Budget Review - Civilian Manpower.

2. Purpose. To provide civilian manpower costing data detail required by program directors to update their ADP systems to reflect DAPE-MBA manpower transactions.

3. Background. The civilian manpower cost adjustments result from manpower transactions generated during the development of the FY 96-90 POM that occurred to late to be included in the May 84 Program Budget Guidance as well as transactions generated for the FY 1986 OSD Budget Submission. The following provides additional information on enclosures issued in this document:

a.The civilian manpower end strength, workyears, and associated costs start point for the FY 1986 OSD Budget Submit were issued to you in reference 1 above.

b.An explanation of the civilian manpower changes included in the audit trail is at Enclosure 1. This provides the ACTNO range of the manpower transactions along with a narrative explanation of their purpose. For every action that you see a funding control change in the Appropriation Ledger Controls a MPDI Issue is provided.

c.MPDI Controls are provided at Enclosure 2. The controls reflect the funds you should have coded against command "OC" against keycode or BMIS code MPDI. It is important that you are in balance with these controls to insure funding for manpower approved changes. The following MPDI changes are for subprogram realignments or pay shortfalls and are not associated with an indiviual manpower ACTNO:

(1) Realignment Internal - Reprogramming to remove negative balances from MPDI within subprogram. This action moves resources between mission, base operations minus, and RPMA.

(2) Medical Pay - This increase is to offset the large reduction associated with PBD 601 Economic Assumption reduction which was initially developed based on manpower growth between the years. This economic assumption reduction was lable PBD 666 Civilian Manpower when issued to field.

(3) Major Program Realignment - This action was generated to eliminted negative balances in MPDI between major programs in the outyears.

(4) ACC Manyear Pay Shortfall - This action is to restore funding reduced by OSD in PBD 009 based on a workyear utilization reduction. DAPE-MBA did not reduce workyears for FY 86 and out stating PBD 009 did not address a workyear reduction for FY 86 out.

d.The detail controls for the civilian manpower are enclosed. Enclosure 3 provides a list of enclosures.

4. Discussion:

a.DAPE-MBA has not locked all of their manpower ACTNOs at this point. They were processing the final manpower ACTNOs for FY 1984 and FY 1985 late on 15 August 1984. Upon receipt and verification the remaining changes will be provided.

DA FORM AUG 80 2496 PREVIOUS EDITIONS WILL BE USED

Figure 2.7. DF to P/SP Directors

DACA-OMP
SUBJECT: Civilian Manpower Controls for FY 1986 OSD Budget (1)

b. Final manpower controls will be issued reflecting the impact of the above cited manpower changes. The controls will also include a FY 1985 Pay Supplemental based on 3.5%. Information on standard stubs for the justification book will also be provided along with data on foreign currency fluctuation a d OP-32 Controls for price and program growth.

c. Upon receipt of the Appropriation Ledger Controls reflecting the above action we will issues standard stubs for the October 1984 PBG.

FOR THE COMPTROLLER OF THE ARMY:

Encl
as

CHARLES E. WILLIAMS
Brigadier General, GS
Director of Operation
and Maintenance, Army

DISTRIBUTION:

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DAEN-ZCF
DALO-RMS
DACA-OMO

Figure 2.7. (Cont.) DF to P/SP Directors

EXPLAINATION OF CIVILIAN MANPOWER CHANGES

ACTNO RANGE	NARRATIVE EXPLAINATION
841451	FOA POM decision to plus back spaces in PDIP PB5A - this ACTNO was reflected in the May 1984 PBG for manpower. However, it was processed to late to be reflected in the Appropriation Ledger Controls for the POM. It is reflected in this update. MPDI Issue - FOA POM PB5A Restoral
841500-841523	FOA Reduction of -1,646 reflected in POM - this ACTNO was reflected in the May 1984 PBG for manpower. However, it was processed to late to be reflected in the Appropiration Ledger Controls for the POM. It is reflected in this update. MPDI Issue - FOA Reduction -1,646
842016-842017	PBD 666C2 Reversal - plus back of RDT&E 400, and 2,500 space reduction. No funding adjustment was ever made for the action.
842019	FOA Decrement Balance - This ACTNO is a budget only transaction which requires no funding adjustment in the Appropriation Ledger Controls.
842026-842044	PBD 666C2 to DARCOM - These transactions reflect an redistribution within DARCOM of PBD 666C2. No funding adjustments are required for these ACTNO's.
842501-844100	Command Operating Budget (COB) Automated Schedule 8 Changes - the funding adjustments for these transactions are reflected in the Ledger Controls by COB issue number.
844401-844500	Command Operating Budget (COB) Schedule 8-transactions written by Command Managers. The funding adjustments for these transactions are reflected in the Ledger Controls by COB issue number.
842057-842065 842066-842068	Directed Actions - Funding adjustments for these actions are reflected in the Appropiration Ledger Controls. This actions were directed by OSD, CSA, VCSA or higher authority. MPDI Issue - Directed Actions

Enclosure 1

Figure 2.7 (Cont.) DF to P/SP Directors

ACTNO RANGE	NARRATIVE EXPLAINATION
842100	OOC POA Restoral +751 - This ACTNO reverses a budget only transactions in the POM. (ACTNO 840502) .o funding adjustments are required. MPDI Issue - POA Restoral +751
842202-842260	Miscellaneous ARSTAFF Reprogramings - These actions reflect the corrections or reprograming required by Appropriation, Program Directors and Commands. The funding adjustments for the ACTNO are reflected in the Appropriation Ledger Controls. MPDI Issue - Miscel ARSTAFF Reprog (1)
842261-842262	Miscellaneous Establishment of USAIA - This action reflects in establishment of a new Operating Agency for FY 1985. Program Director is responsible to insure funding transfers are made between commands.
842263-842315	Miscellaneous ARSTAFF Reprograming (Continued) - These actions reflect corrections or reprogramings by the Appropiration, Program and Commands. Funding adjustments are reflected in the Appropriation Ledger Controls. MPDI Issue - Miscel ARSTAFF Reprog (2)
842102-842114	OOC - Delayed VCSA Adjustments - These actions reflect approval of the VCSA to resource command out of cycle requests. Funding adjustements are reflected in the Appropriation Ledger Controls. MPDI Issue - OOC Delayed VCSA Adj
842115-842201	OOC - June Committee Actions - These actions reflect June 1984 out of cycle requests approved by the Out-of-Cycle Committee. Funding adjustments are reflected in the Appropriation Ledger Controls. MPDI Issue - OOC June Cmt Actions
842316-842375 844501	OOC Decrements - These transactions reflect the tradeoffs identified to pay the out of cycle manpower bill. Funding adjustments are reflected in the Appropriation Ledger Controls. MPDI Issue - OOC Decrements (1)

Figure 2.7 (Cont.). DF to P/SP Directors

ACTNO RANGE	NARRATIVE EXPLAINATION
844101-844140	7th ID Adjustments - These transactions reflect the resourcing of the 7th ID along with the tradeoffs required to pay the bill. These transactions reflect full workyears for FY 1985. DAPE-MBA will process an additional range of ACTNOS to reduce FY 1985 to one half workyears. Funding Adjustments will be reflected in the Appropriation Ledger Controls. MPDI Issue - 7th ID Resourcing

Figure 2.7 (Cont.). DF to P/SP Directors

LIST OF CIVILIAN MANPOWER
DETAIL CONTROLS

ENCLOSURE	TITLE
4	FOA POM - PB5A - Summary
5	POM INITIATIVES FOA POM - PB5A - Detail
6	FOA Reduction -1,646 - Summary
7	FOA Reduction -1,646 - Detail
8	Directed Actions - Summary
9	Directed Actions - Detail
10	FOA Restoral +751 - Summary
11	FOA Restoral +751 - Detail
12	Misc ARSTAFF Reprogramming ACTNO 842202-842263 - Summary
13	Misc ARSTAFF Reprograming ACTNO 842202-842263 - Detail
14	Medical Pay Shortfall - Summary (This may be spread to any PE the program director desires)
15	Misc ARSTAFF Reprograming ACTNO 842263-842315 - Summary
16	Misc ARSTAFF Reprograming ACTNO 842263-842315 - Detail
17	Misc ARSTAFF Reprograming Establish USAIA Detail (The program director is responsible for insure command reprograming is accomplished on funding.)
18	Directed Actions ACTNO 842057-842065 - Detail (This ACTNO nets to zero within P10)
19	OOC - Delayed VCSA Adjustments - Summary

Enclosure 3

Figure 2.7 (Cont.). DF to P/SP Directors

20	OOC - Delayed VCSA Adjustements - Detail
21	OOC - New Adjustements (June) - Summary
22	OOC - New Adjustements (June) - Detail
23	OOC - Decrement Billpayers - Summary
24	OOC - Decrement Billpayers - Detail
25	ACC Manyear Pay Shortfall - Summary (This may be spread to any PE the prograz directors desires)

Figure 2.7 (Cont.). DF to P/SP Directors

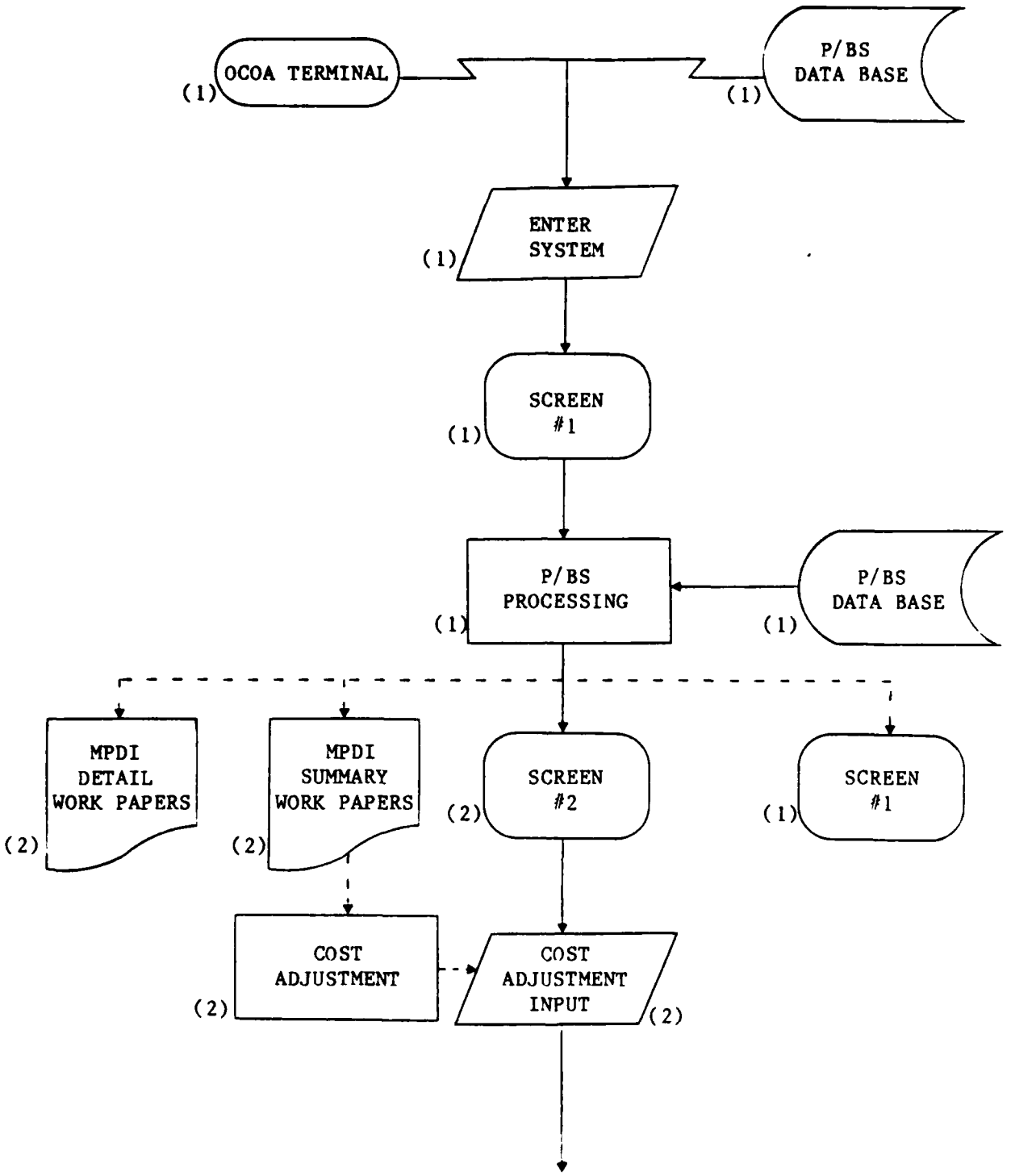

Figure 2.8. Development of Civilian Manpower Cost Controls (Proposed Procedures) Flow Diagram

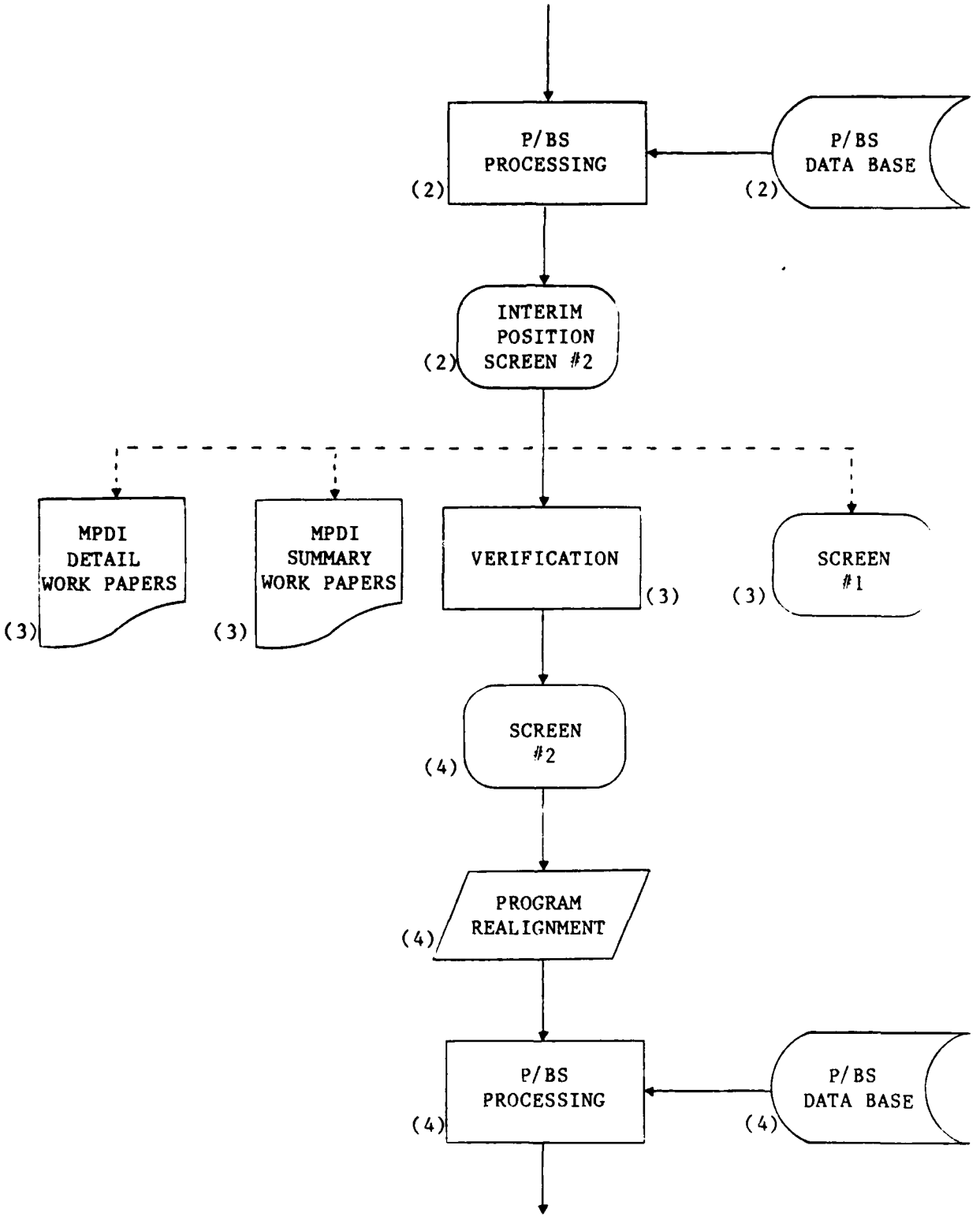

Figure 2.8 (Cont.). Development of Civilian Manpower Cost Controls (Proposed Procedures) Flow Diagram

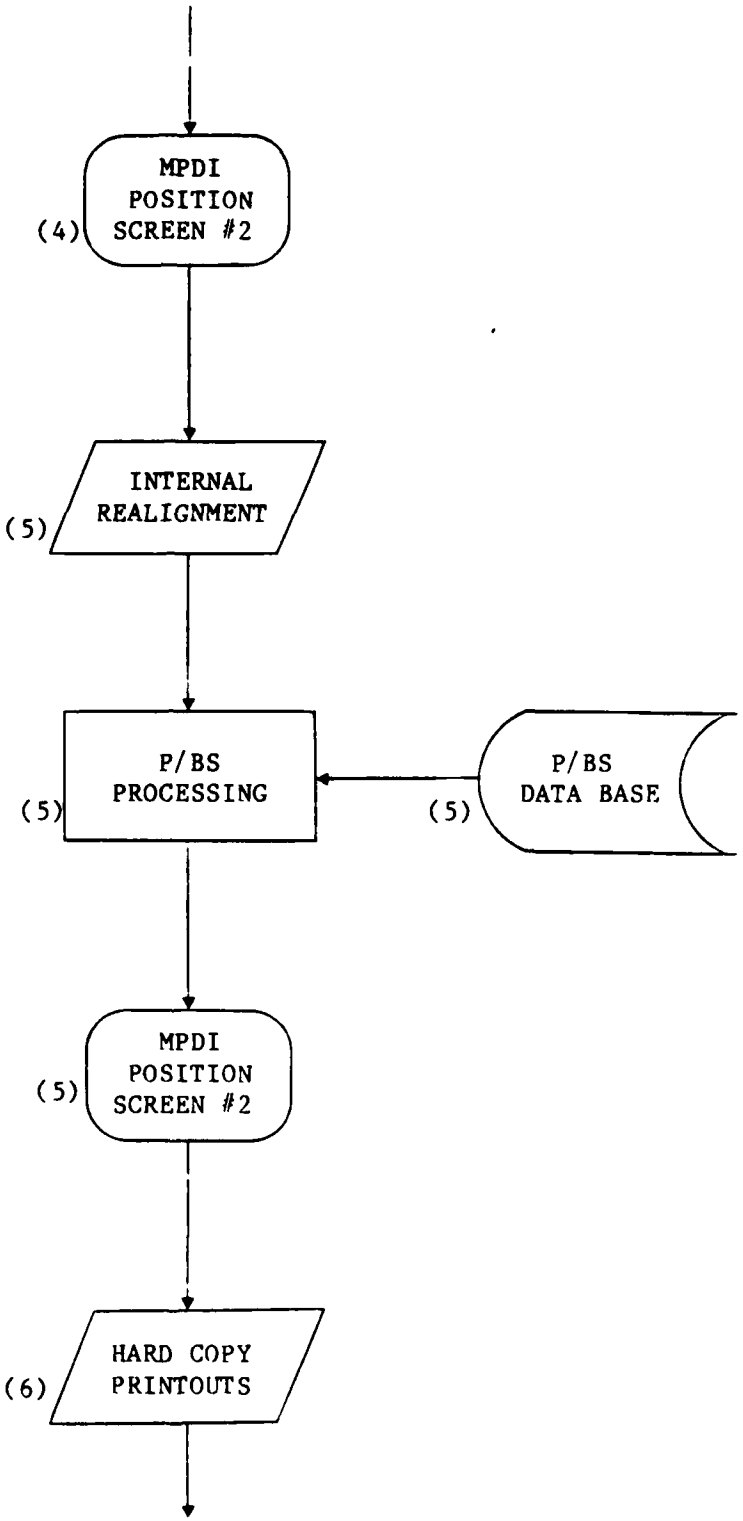

Figure 2.8 (Cont.). Development of Civilian Manpower Cost Controls (Proposed Procedures) Flow Diagram

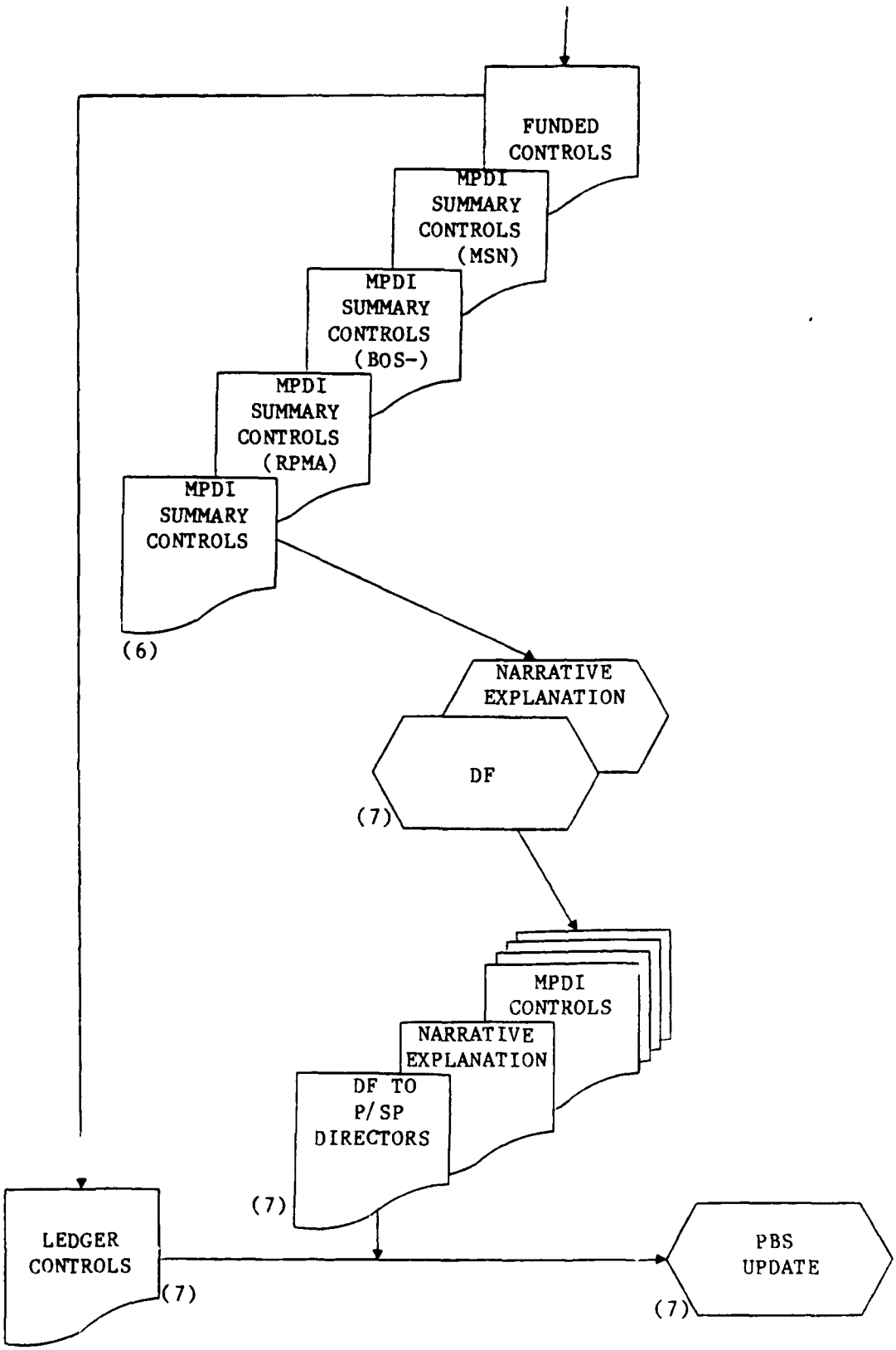

Figure 2.8 (Cont.). Development of Civilian Manpower Cost Controls (Proposed Procedures) Flow Diagram

A Funded Detail Transactions Screen (Screen #1) (Figure 4.1) is called up. The analyst enters appropriate header data in fields (1) through (6). Based on these entries, P/BS processes all ACTNOs that have been "live approved" between the two positions indicated in fields (3) and (4). After all ACTNOs have been processed, a separate Screen #1 is available for display for each issue showing the issue number, title and cost data for each ACTNO as well as total costs for each issue.

b. MPDI Adjustments

Step 2

MPDI adjustments are made on an MPDI (958) Summary Transactions Screen (Screen #2) (Figure 4.2) in accordance with the following procedures. Call up Screen #2; fields (1) through (12) will appear. Make appropriate entries in fields (1) through (4). This will result in the screen displaying the START POSITION in fields (9) and (10). Blank fields (11) and (12) are displayed for entry and display of adjusted data. Data are entered in field (11) to reduce or eliminate negative balances in fields (9) and (10).

Upon completion of entries in field (11) data are processed in FORDIMS-P/BS and the interim MPDI account position is displayed in field (12). The signs on the funded data in Screen #1 are reversed and summary data for each funded ISSUE are displayed in numerical sequence as in field (13). Depending on the number of issues, the analyst may have to scroll the screen in order to review all issues. Following the final issue in the screen, the MPDI INTERIM POSITION is displayed in field (14). This is the balance in the MPDI withhold account.

c. Data Verification

Step 3

The analyst reviews each issue to determine if the data appear to be proper based on prior coordination of ACTNOs. If doubt exists regarding a particular issue, or the analyst desires more information regarding a particular issue, Screen #1 may be called up for review. Additionally, hard copy work papers of both screens may be produced for more detailed analysis.

d. Program Realignment

Step 4

After the analyst is satisfied that the MPDI POSITION is proper, fields (14), (15) and (16) are displayed, if the entry in field (2) is not for the current year. PROGRAM REALIGNMENT data are entered and the screen displays the new MPDI position in field (16). (If entry in field (2) is for the current year, there is no Program Realignment, Step 4.)

e. Internal Realignment

Step 5

After completion of Step 4 or if Step 4 is omitted, fields (16), (17) and (18) are displayed. INTERNAL REALIGNMENT data are entered in field (17), after which field (18) displays the new MPDI POSITION.

There is a possibility that new or additional funded issues may develop or other MPDI adjustments may be required after the establishment of an MPDI POSITION. If this occurs, the new funded issues are picked up in P/BS on Screen #1 (Step 1) or the MPDI adjustments are entered directly onto Screen #1. The signs on the data are reversed and the new issue is entered in Screen #2, field (13). Subsequent issues are renumbered and a new MPDI position is computed in field (14). The analyst then repeats Steps 4 and 5.

f. MPDI Controls

Step 6

After the final MPDI POSITION is established and verified, (field (18)) the MPDI summary controls are printed. The format for the MPDI summary controls is the same as the completed Screen #2 (Figure 4.2). This provides users of the controls with a complete audit trail of the MPDI transactions. MPDI (958) Summary Transactions by Cost Category are also produced in the format at Figure 4.3. Funded controls are printed in the format at Figure 4.1.

Step 7

MPDI controls are distributed in accordance with the procedures described in paragraph 2.3.5 above.

2.4.1 Summary of Improvements

The ADS will provide timely generation of program and budget data that currently requires several days of work by 2 people in DACA-OMP. The system will enhance the accurate identification of manpower transactions and will relieve highly paid analysts of tedious manual manipulation of data. It will also enable the OCOA to be more responsive, with more accurate data during preparation of program and budget submissions.

2.4.2 Summary of Impacts

2.4.2.1 User Organization Impacts

The ADS will increase the efficiency of the OCOA as well as that of the P/SP directors by saving analyst time and providing more timely information. There will be no requirements for reorganization in either DACA-OMP or the various program directors' offices.

2.4.2.2 User Operational Impacts

There will be no adverse impacts on the preparation of program and/or budget submissions. After development of the system, the operational impact will be the enhanced ability to issue civilian manpower cost controls in a more timely, accurate and complete manner. There will be no adverse operational impacts.

2.4.2.3 User Development Impacts

The system will employ equipment currently operated by the user organization. A minimum amount of training in direct data input will be required for analysts using the OCOA terminal. They will have to become familiar with the new CRT displays. A system check (see reference 1.2.2bb above) using the current manual process will be required, but no adverse impact will result.

2.5 Assumptions and Constraints

The following assumptions have been made in developing this system:

- Civilian manpower cost controls will continue to be required by P/SP directors.
- Computer time for processing the input and stored data will be made available.
- The FORDIMS-P/BS data base may be utilized for producing required outputs.
- The VFDMIS data base will be designed to provide the same automated capabilities.

If computer support or the P/BS data base is unavailable or provisions are not made in VFDMIS, this system will not provide the improved efficiencies that are expected.

SECTION 3

DETAILED CHARACTERISTICS

3.1 Specific Performance Requirements

The civilian manpower cost controls automated data system will be compatible with VFDMIS and must be capable of performing the following tasks:

- Receive data input by remote interactive terminal from DACA-OMP.
- Compute new MPDI positions based on funded transactions and cost adjustment data input.
- Produce printouts in the prescribed formats for both detail (funded) and summary (MPDI) levels.
- Store and retrieve data in specified formats.

3.1.1 Accuracy and Validity

a. The system must be able to (1) identify every ACTNO related to every funded issue between the start position and current position for designated FYs, (2) accurately sort costs for each funded ACTNO and each issue by P/SP and by cost category, (3) apply costs to the MPDI account and (4) compute different MPDI positions based on cost increases and decreases.

b. The system must provide for data validation and editing prior to producing the final documents. There should be a capability to verify that all ACTNOs and issues have been identified and that MPDI positions have been computed accurately. These verification procedures will ensure an accurate product result.

c. The system must insure that cost adjustments are not made between major programs in the CY and BY (Program Realignment).

d. Data utilized by the system must be accurate. The P/BS data base data must be verified for accuracy. Data used should be from the live, approved file so that it reflects verified data.

e. In its present configuration, the system will not use data transmitted from locations outside the Pentagon. However, the system must have the capability of verifying the data input through remote terminals in the Pentgon.

3.1.2 Timing

While there are no established timing requirements anticipated for throughput, the system must have the capability to meet short suspense times on the order of 24 hours or less for production of required reports. However, it must be noted that during program and budget preparation, suspense times are somewhat short and may be subject to change. MPDI positions must be instantaneously displayed on the CRT as entries are input by the analyst (Figure 2.8, Steps 2 through 5).

3.2 Functional Area System Functions

3.2.1 Data Input

This function consists of input of header data and of MPDI cost adjustments by DACA-OMP using remote terminal. The header data consists of FY, APPN and program/budget positions. The cost adjustment data will be configured by subprogram. Within each subprogram, the data will be futher subdivided by cost category (MSN, BOS(-), or RPMA).

3.2.2 P/BS Processing

This function will consist of identifying in P/BS the program/budget start position, funded issues, funded ACTNOs associated with the issues and costs associated with each. After all issues and ACTNOs between the start position and the current position have been identified, the signs on the data are reversed and the costs are

credited or debited to the MPDI account to arrive at an MPDI position. Based on MPDI adjustments through remote terminal inputs, the system establishes subsequent MPDI positions. Data are processed for the CY, BY, and four program years.

3.3 Input-Outputs

3.3.1 Inputs

Inputs consist of header data and MPDI cost adjustments expressed in thousands of dollars. Data are input in whole dollars (no fractions) and may be plus or minus. No sign indicates a plus value, a minus sign following the dollar entry indicates a minus value. Screens #1 and #2 (Figures 4.1 and 4.2) are used to input data from the remote interactive terminal in OCOA. Data are entered simply by typing them directly into the appropriate place on the screens.

Input data elements are described in paragraph 4.4.1.

3.3.2 Outputs

Outputs will be in the form of hard copy reports and CRT displays. Each completed screen should be available on the CRT for review and change/update as required. Screen #2 should also be available to the analyst at various stages of preparation. Partial viewing will consist of header data [fields (1) through (8)] and the appropriate selected issue(s). CRT displays may be scrolled in order to provide complete viewing. The cost controls should be produced in hard copy in the formats at Figures 4.1, 4.2 and 4.3 (Screens #1, #2, and #3). A separate report is produced for each FY for which controls are issued (CY, BY, and four program years). For the Screen #1 format, a separate report is produced for each issue. For Screen #3, separate reports are produced for MSN, BOS(-), and RPMA.

Output data elements are described in paragraph 4.4.2.

3.4 Data Base Characteristics

The data base used for this system is FORDIMS-P/BS. The characteristics of that data base are outlined in the FORDIMS-P/BS User's Guide (Reference 1.2.2w).

3.5 Failure Contingencies

It is expected there will be occasions when hardware or software system failures of relatively short duration will occur. Under such circumstances failure contingencies and alternate courses of action may be taken to temporarily satisfy MPDI cost controls preparation requirements.

a. Back-up. The FORDIMS-P/BS files and input data will be stored on disk files. USAMSSA provides back-up by daily dumps from disk to magnetic tape. Some of the input data will be retained on hard copy. Consequently, the loss of critical operational software would be minimal.

b. Fallback. Should the mainframe operating system at USAMSSA fail, batch processing or manual manipulation and recording of data may be used.

3.6 Security

The data input by DACA-OMP and the final MPDI cost controls are UNCLASSIFIED. Because the information is being used for budget formulation, it is not releasable to the general public and should be protected as such. There are no individual personnel records used in the system.

SECTION 4

DESIGN DETAILS

This section provides a detailed description of the Civilian Manpower Cost Controls ADS which will satisfy the system requirements outlined in more general terms in Sections 2 and 3.

4.1 System Description

The Civilian Manpower Cost Controls ADS uses an established data base, and a discrete data set containing data elements entered by interactive remote terminal to calculate civilian cost controls for P/SP directors. It also provides an automated means for P/SP directors to define detailed civilian personnel costs and facilitates a prioritized and systematic distribution of funding to the various elements of OMA funded activities.

FORDMIS-P/BS is the established system on which the cost controls ADS relies. The use of P/BS and its data base configuration are explained in the FORDIMS User's Guide, Volume 1, dated August 1980 (Reference 1.2.1w). The cost controls ADS provides the capability for automated input to the discrete MPDI data set for cost adjustments to the MPDI account. Final cost data are produced by processing the input data on the discrete MPDI data set within the P/BS data base through an automated P/BS program. The data are manipulated in a way to produce the various MPDI positions. These cost controls will be reported in the established formats (Figures 4.1, 4.2, and 4.3).

The formats will constitute MPDI civilian personnel cost controls for the P/SP directors and for development of OMA ledger controls.

4.2 System Functions

a. The data input function will be performed by DACA-OMP using the Four-Phase Systems, Inc Data IV/50 remote control terminal cluster. This equipment provides DACA-OMP interactive and immediate data input capability. The data

FUNDED DETAIL TRANSACTIONS

APPN: _____ (1) _____

FY: _____ (2) _____

START POSITION: _____ (3) _____

CURRENT POSITION: _____ (4) _____

ISSUE NR: _____ (5) _____

ISSUE TITLE: _____ (6) _____

PROGRAM (7)

		TOTAL (8)	P20	P38	P39	P72	P73	P81	P84	P87	P95	P10
TOTAL	(9)											
	MSN											
	BOS(-) (10)											
	RPMA											
ACTNO	xxxxxx (11)											
	MSN											
	BOS(-)											
	RPMA											
.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
ACTNO	i (11)											
	MSN											
	BOS(-)											
	RPMA											
.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
ACTNO	n (11)											
	MSN											
	BOS(-)											
	RPMA											

Figure 4.1. Funded Detail Transactions (Screen #1)

MPDI (958) SUMMARY TRANSACTIONS

APPN: (1)

FY: (2)

START POSITION: (3)

CURRENT POSITION: (4)

PROGRAM (5)

(6) ISSUE NR.	(7) ISSUE TITLE	(8) TOTAL	P20	P38	P39	P72	P73	P81	P84	P87	P95	P10
	START POSITION											
1M												
1B	(9)											
1R												
	ISSUE TOTAL (10)											
	INTERNAL REALIGNMENT											
2M												
2B	(11)											
2R												
	ISSUE TOTAL											
	MPDI POSITION											
3M												
3B	(12)											
34												
	ISSUE TOTAL											
4M												
4B	(13)											
4R												
	ISSUE TOTAL											
.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.

Figure 4.2. MPDI (958) Summary Transactions (Screen #2)

MPDI (958) SUMMARY TRANSACTIONS (Continued)

APPN: (1)

FY: (2)

START POSITION: (3)

CURRENT POSITION: (4)

PROGRAM (5)

(6) ISSUE NR.	(7) ISSUE TITLE	(8) TOTAL	P20	P38	P39	P72	P73	P81	P84	P87	P95	P10
	MPDI POSITION											
(n+3)M												
(n+3)B	(16)											
(n+3)R												
	ISSUE TOTAL											
	INTERNAL REALIGNMENT											
(n+4)M												
(n+4)B	(17)											
(n+4)R												
	ISSUE TOTAL											
	MPDI POSITION											
(n+5)M												
(n+5)B	(18)											
(n+5)R												
	ISSUE TOTAL											

Figure 4.2. MPDI (958) Summary Transactions (Screen #2)

MPDI (958) SUMMARY TRANSACTIONS (Continued)

APPN: (1)

FY: (2)

START POSITION: (3)

CURRENT POSITION: (4)

PROGRAM (5)

(6) ISSUE NR.	(7) ISSUE TITLE	(8) TOTAL	P20	P38	P39	P72	P73	P81	P84	P87	P95	P10
iM												
iB (13)												
iR												
	ISSUE TOTAL											
.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.
nM												
nB (13)												
nR												
	ISSUE TOTAL											
	MPDI POSITION											
(n+1)M												
(n+1)B (14)												
(n+1)R												
	ISSUE TOTAL											
	PROGRAM REALIGNMENT											
(n+2)M												
(n+2)B (15)												
(n+2)R												
	ISSUE TOTAL											

Figure 4.2. MPDI (958) Summary Transactions (Screen #2)

MPDI (958) SUMMARY TRANSACTIONS BY COST CATEGORY

APPN: (1) CATEGORY: (1a)

FY: (2)

START POSITION: (3)

CURRENT POSITION: (4)

PROGRAM (5)

(6) ISSUE NR.	(7) ISSUE TITLE	(8) TOTAL	P20	P38	P39	P72	P73	P81	P84	P87	P95	P10
1	START POSITION (9)											
2	INTERNAL REALIGNMENT (10)											
3	MPDI POSITION (11)											
4		(12)										
. . .		. ..										
i		(12)										
. . .		. . .										
n		(12)										
n+1	MPDI POSITION	(13)										
n+2	PROGRAM REALIGNMENT (14)											
n+3	MPDI POSITION	(15)										
n+4	INTERNAL REALIGNMENT (16)											
n+5	MPDI POSITION	(17)										

Figure 4.3. MPDI (958) Summary Transactions by Cost Category (Screen #3)

input will consist of header data and MPDI cost adjustments within major programs (Internal Realignment), between major programs in the outyears (Program Realignment), or adjustments to the MPDI 958 account. Cost adjustments may be input for each of the ten OMA P/SP having civilian personnel expense and for each of the three categories in each support function, i.e., MSN, BOS(-), and RPMA.

b. The P/BS processing function is the first processing step in meeting the requirement to produce funded cost controls. This step will consist of identifying funded issues, associated ACTNOs and applicable costs by P/SP and category in the P/BS data base (Screen #1).

c. Once the funded issues have been identified, Screen #2 is displayed showing the START POSITION. This START POSITION is stored in P/BS and corresponds to the program or budget position for the applicable FY. The analyst using direct input on the OCOA terminal enters adjusted cost data (internal realignment) and P/BS computes the MPDI POSITION.

d. P/BS summarizes the issues in Screen #1 into the format in Screen #2 [field (13)], reverses the signs on the data, credits/debits the data to the MPDI position in field (12), and computes a new MPDI POSITION [field (14)] based on the values of the costs in each issue. The analyst enters additional MPDI cost adjustments. If the analyst attempts to make cost adjustments between major programs in the CY or BY, the system rejects the input. After all adjustments are made, the system calculates a new MPDI POSITION. The ADS must have the capability to pick up newly funded issues in P/BS or other MPDI 958 account adjustments as they occur (Screen #1) and automatically calculate a new MPDI POSITION. In these cases, the newly funded issues are displayed in field (13) and a new MPDI POSITION is established. Additional

MPDI issues may then be entered as program realignments or internal realignments in fields (15) and (17) respectively.

e. The system will be designed to produce outputs described in paragraph 3.3.2.

4.2.1 Accuracy and Validity

a. The Civilian Manpower Cost Controls ADS will accurately identify funded issues, related ACTNOs and associated costs between specified MPDI account positions. Costs will be expressed in whole thousands of dollars. The ADS will accurately compute transactions to arrive at the various positions.

b. The data used from the P/BS should come from the "live approved" file unless otherwise requested; the system will have the capability of using the temporary (or "TC") files of the P/BS data base. The P/BS data base, on which the ADS will depend, has a comprehensive validation and checking system to ensure the accuracy of data input. Trial, unapproved reports are generated along with automation error reports for use by users and system operators in verification of the accuracy of input data.

4.2.2 Timing

a. Throughput time will be a function of priorities for computer time. Because of the stringent requirements for development of budget exhibits, the throughput time will never exceed 24 hours.

b. Responses to queries, displays of screens and update of data files will be real time.

c. The system will run sequentially as shown in paragraph 2.4. This order must be followed because each function depends on the data or processing performed by the preceding step. In addition, the system will have built-in pauses to allow for data and processing verification,

e.g., after P/BS processing in Step 2, the analyst must have the capability to verify that all funded issues have been identified. The system also will have the capability to perform processing and production of all output reports in an uninterrupted mode when required.

d. The processing of data and development of controls is not limited to program/budget lock points. The system must be able to calculate the current MPDI account position at any point in time based on the start point, funded issues and MPDI issues in the system.

e. Since the system is dependent upon the input of MPDI cost adjustments before any other processing can be accomplished, it will give priority to the input of these elements. The primary mode of operation will allow for periodic interruption of data processing for verification of input data and processing accuracy.

f. There are no established timing requirements for traffic load variations.

4.3 Flexibility

The ADS will be compatible with VFDMIS. Since the ADS depends on P/BS for data, it also will be capable of integration with P/BS and, in fact, will meet part of one of the objectives of P/BS, i.e., the generation of budget documents for civilian personnel costs. The system will be designed to allow for additional data elements in any category or modification of the definition or scope of any data identification. For example, the analyst may desire to know the OPAGYs affected by a particular MPDI issue. The system must also allow the update of data or addition of data to those previously input, e.g., the addition of the OMA ledger control number to the ISSUE TITLE after it is determined by the Appropriation Controls Team.

4.4 System Data

4.4.1 Inputs

a. The titles are:

(1) Funded Detail Transactions (Screen #1)

(2) MPDI (958) Summary Transactions (Screen #2)

b. Formats are at Figures 4.1 and 4.2. The numbers in parentheses in these screens correspond to the numbers in parentheses preceding the data element fields described below.

(1) A Funded Detail Transactions screen (Screen #1) is available for each funded issue. The screen displays each ACTNO associated with that issue, the costs associated with the ACTNO by P/SP and category, and the total cost for the issue by P/SP and category. The screen may be scrolled if necessary in order to view all ACTNOs. At the end of the screen for each issue, the screen for the subequent issue is displayed. The screen is used by the analyst to verify that all funded issues are included and a hard copy printout of the screen is used in subsequent steps to develop the OMA ledger controls and as an audit trail for funding changes. Additionally the screen is used to input adjustments to the MPDI 958 account that are not in P/BS. The following describes the data element fields in Screen #1.

(1) APPN: This is always OMA (including AIF).

(2) FY: The fiscal year in which the resource entries apply.

(3) START POSITION: The prior program or budget position, e.g. FY 86-90 POM.

(4) CURRENT POSITION: a. The program or budget position for which the controls are being issued, e.g. FY86 OSD BUDGET or the date

for which controls are desired expressed numerically as day, month and year, e.g., 041184 (4 Nov 84), or

b. Range(s) of live approved/extended ACTNOs.

(5) ISSUE NR: An administrative number assigned to each issue title (see below). The first issue number will always be "4" and will be determined by the first issue entered on the screen. Each subsequent issue will be assigned numbers in sequence.

(6) ISSUE TITLE: Entered by the analyst based on the P/BS coding sheet for live approval/extension provided by DAPE-MBA. Title will include the narrative explanation of the change, indicator "IF" if the issue contains AIF funding and the OMA ledger control number when known, e.g., FOA POM PB5A RESTROAL IF 0134.

(7) PROGRAM: All OMA P/SP having civilian manpower costs. Costs are displayed for each P/SP as appropriate.

(8) TOTAL: The totals of all P/SP entries for each line.

(9) TOTAL: The totals of MSN, BOS(-), and RPMA for the issue and for each P/SP.

(10) MSN, BOS(-), RPMA: The categories of funding and the costs associated therewith. These entries are the totals of the MSN, BOS(-), and RPMA entries for each ACTNO [see field (11)].

(11) ACTNO: The P/BS transaction number(s) associated with the issue. All ACTNOs associated with the issue are entered in ascending numerical sequence. Costs are entered by P/SP and category. The total costs for each P/SP for each ACTNO are entered in the ACTNO line. The totals for MSN, BOS(-), and RPMA for each ACTNO and the grand total for each ACTNO are entered in the TOTAL, field (8).

(2) (958) MPDI Summary Transactions (Screen #2) (Figure 4.2) displays the start (program/budget) position for MPDI changes, displays data from Screen #1 by issue totals, provides the analyst with a medium for making MPDI cost adjustments and provides an audit trail for these adjustments. A hard copy printout of the completed screen constitutes the MPDI controls and status of the MPDI account.

(1) APPN: This is always OMA (including AIF).

(2) FY: The fiscal year in which the resource entries apply.

(3) START POSITION: The prior program or budget position, e.g., FY86-90 POM.

(4) CURRENT POSITION: a. The program or budget position for which the controls are being issued, e.g., FY86 OSD BUDGET or the date for which the controls are desired expressed numerically as day, month, and year, e.g., 041184 (4 Nov 84), or,

b. Range(s) of live approved/extended ACTNOs.

(5) PROGRAM: All OMA P/SP having civilian manpower costs. Costs are entered for each P/SP as appropriate.

(6) ISSUE NR: An administrative number assigned to each MPDI issue title. Issues 1, 2, and 3 represent administrative adjustments to the MPDI account START POSITION. Issues 4 thru n represent funded manpower transactions from Screen #1. Issues (n+1) through (n+3) are further administrative adjustments to the MPDI account.

(7) ISSUE TITLE: The administrative title of the MPDI issue [Issues #1 thru 3 and (n+1) thru (n+5)] or the issue title from field (6), Screen #1 (Issue 4 thru n), for funded issues. All other issues have standard issue title, e.g., INTERNAL REALIGNMENT MPDI POSITION, etc.)

(9) ISSUE 1M, 1B, and 1R: This is always MPDI Issue Nr. 1 and represents the START POSITION for the MPDI adjustments. (M=MSN, B=BOS(-), R=RPMA).

(10) ISSUE TOTAL: The total resources vertically and horizontally for each issue.

(11) ISSUE 2M, 2B, and 2R: This is always MPDI Issue Nr. 2. It is in this field that the analyst makes MPDI internal adjustments to the START POSITION data.

(12) ISSUE 3M, 3B, and 3R: This is always MPDI Issue Nr. 3 and represents the position of the MPDI account resulting from adjustments in Issue Nr. 2.

(13) ISSUE 4M, 4B, and 4R through nM, nB, and nR: This is a summary of the data in Screen #1, fields (9) and (10) for all funded transaction issues.

(14) ISSUE (n+1)M, (n+1)B, and (n+1)R: This is the next issue number in sequence following the last entry of funded issues from Screen #1. It represents the position of the MPDI account resulting from the processing of issues since Issue Nr. 3.

(15) ISSUE (n+2)M, (n+2)B, and (n+2)R: This is the next issue number in sequence. It is in this field that the analyst can make MPDI adjustments between programs. Adjustments cannot be made in this field for the CY or BY.

(16) ISSUE (n+3)M, (n+3)B and (n+3)R MPDI POSITION: This is the next issue number in sequence and represents the results of the adjustments in field (15). [Not used for CY or BY since no adjustments are allowed in field (15)].

(17) ISSUE (n+4)M, (n+4)B, and (n+4)R: INTERNAL REALIGNMENT: This is the next issue number in sequence. It is in this field that the analyst can make MPDI adjustments within programs.

(18) ISSUE (n+5)M, (n+5)B, (n+5)R: MPDI POSITION. This is the next issue number in sequence and represents the results of the adjustments in field (17).

c. Number of items

(1) Screen #1: Remote input entries are made in fields (1) through (6) for each FY for which controls are produced. For funded transactions in P/BS, data entries in all other fields are generated in P/BS. For adjustments to the MPDI 958 account, remote input entries are also made in fields (8), (9), and (10).

(2) Screen #2: Remote input entries are made in fields (11) (15) and (17). Data entries in all other fields are generated in P/BS based on data in P/BS and Screen #1 inputs.

(3) The size of each field is displayed in Table 4.1.

d. The system will be entered and data input through the remote console in OCOA.

e. MPDI controls will be generated a minimum of three times in each FY. Each set of controls will cover the CY, BY and four program years.

f. ADS entry and processing will normally be on a routine priority.

g. The only input data are the header data in Screen #1 which is known to the analyst, and MPDI cost adjustments in Screen #2 based on broad criteria established in DACA-OMP and the judgment and experience of the analyst. All other data elements exist in P/BS.

TABLE 4.1
SIZE OF DATA ELEMENTS FIELDS

OUTPUT	FIELD	TITLE	COLUMNS	REMARKS
Funded Detail Transactions (Screen #1 Format)	(1)	APPN	3	
	(2)	FY	2	
	(3)	START POSITION	15	Left justified
	(4)	CURRENT POSITION	15	Left justified
	(5)	ISSUE NUMBER	3	Left justified
	(6)	ISSUE TITLE	10	Left justified Cols 35 and 36 reserved for IF designator. Cols 37-40 reserved for ledger control number
	(7)	PROGRAM	6	Cost for each P/SP. Right justified at 5th column, 6th column used for minus sign
	(8)	TOTAL	6	Right justified at 5th column, 6th column used for minus sign
	(9)	TOTAL	6	Right justified at 5th column, 6th column used for minus sign
	(10)	MSN, BOS(-), RPMA	6	Right justified at 5th column 6th column used for minus sign
	(11)	ACTNO	6	
MPDI (958) Summary Transactions (Screen #2 format)	(1)	APPN	3	
	(2)	FY	2	
	(3)	START POSITION	15	Left justified
	(4)	CURRENT POSITION	15	Left justified
	(5)	PROGRAM	2	Cost for each P/SP Right justified at 5th column, 6th column used for minus sign

TABLE 4.1 (Cont.)
SIZE OF DATA ELEMENTS FIELDS

OUTPUT	FIELD	TITLE	COLUMNS	REMARKS
	(6)	ISSUE NR	3	Left justified
	(7)	ISSUE TITLE	40	Left justified Cols 35 and 36 reserved for IF designator. Cols 37-40 reserved for ledger control number
	(8)	TOTAL	6	Right justified at 5th column, 6th column used for minus sign
	(9)	ISSUE 1M, 1B, 1R	2	
	(10)	ISSUE TOTAL	6	Right justified at 5th column, 6th column used for minus sign
	(11)	ISSUE 2M, 2B, 2R	2	
	(12)	Issue 3M, 3B, 3R	2	
	(13)	Issue 4M, 4B, 4R thru nM, nB, nR	3	Left justified
	(14) thru (18)	Issue (n+1)M thru (n+5)R	3	Left justified
MPDI (958) Summary Transactions by Cost Category (Screen #3 format)	(1) thru (9)			Same as screen #2 format
	(1a)	Category	1	
	(10) thru (17)	Issue 2 thru n+5	3	Left justified

h. The input data are unclassified in individual and aggregated forms.

i. New inputs or corrections and retrieval of data on the CRT screen should be processed into the data base on a real time basis.

4.4.2 Outputs

a. Titles are:

(1) Funded Detail Transactions (Screen #1 format)

(2) MPDI (958) Summary Transactions (Screen #2 format)

(3) MPDI (958) Summary Transactions by Cost Category (Screen #3 format)

b. Formats are at Figures 4.1 and 4.2 and 4.3.

(1) The MPDI (958) Detail Transactions format is described in paragraph 4.4.1b(1).

(2) The MPDI (958) Summary Transactions format is described in paragraph 4.4.1b(2).

(3) The MPDI Summary Transactions by Cost Category screen displays the MPDI issues by cost category, i.e., MSN, BOS(-), and RPMA. Data fields are consistent with those in Screen #2 with the exception of field (1a), "CATEGORY." The entry in field (1a) is either M, B or R. A separate screen is displayed for each category for each FY. Hard copy printouts of the screen become part of the MPDI controls.

c. Number of items. Each format has a set number of fields as indicated by the numbers in parenthese in Figures 4.1, 4.2, and 4.3. Entries in some fields may be repeated an indefinite number of times depending on the number of ACTNOs associated with an issue or the number of MPDI issues in the controls. The size of each field is displayed in Table 4.1.

d. There are no preprinted form requirements.

e. Outputs will be available in hard copy and on the CRT display.

f. The reports will be produced for the POM, OSD Budget, President's Budget and at intermediate times at the discretion of DACA-OMP.

g. The reports will normally be produced on a routine priority.

h. Response time for CRT displays will be real time. Hard copy printouts will be produced within 24 hours of request.

i. All calculations will be accurate and will be expressed in whole thousands of dollars.

j. The reports will be produced for DACA-OMP. DACA-OMP will provide copies of the reports to the OMA Appropriation Controls Team to be used in the preparation of OMA Ledger Controls and to P/SP directors for updating the PBS and preparing budget submissions.

4.4.3 Data Base

The ADS will operate on the P/BS data base. Descriptions of the data elements of the P/BS data base are in the FORDIMS User's Guide, Volume 1 dated August 1980. Additional data element descriptions are in paragraph 4.4.1 above. Data will be retained in P/BS for future retrieval.

SECTION 5

ENVIRONMENT

This section provides a description of the current ADP environment, and projects the environment needed to satisfy the requirements delineated in Sections 3 and 4. The discussion that follows will include the equipment that now supports the P/BS.

5.1. Equipment Environment

This paragraph provides a brief description of the present equipment environment that will support the development of the software leading to automation civilian manpower costing reports. The automated system is expected to be supported by the USAMSSA computer environment using the FORDIMS P/BS data base with interactive links to DACA-OMP.

The equipment environment includes the hardware presently available at USAMSSA for support of the P/BS. The automation of certain DACA-OMP civilian manpower costing reports and budget exhibits will require interactive and batch computer support and supporting hardware for its development and operation.

The following is a broad description of the USAMSSA equipment presently available to support the automation of civilian manpower costing reports which this FD defines. The discussion of the equipment configuration requires that the following equipment categories be addressed:

- Processors
- Storage media
- Output devices
- Input devices
- Communications Net

5.1.1 Processors

The mainframe capability of USAMSSA will be utilized to support the development of automated civilian manpower costing displays with interactive links to terminals located in DACA-OM.

USAMSSA has Amdahl 5860 processors with 32 megabytes of main memory (core). They operate under the Multiple Virtual Storage (MVS) operating system.

5.1.2 Storage Media

The part of the computer that is able to store data is the computer's memory or storage. Storage refers to keeping processed data for future reference. The data are placed on storage media such as paper, magnetic tapes, magnetic discs or microfilm for retrieval when needed.

The USAMSSA storage media consists of:

- 31 Gigabytes DASD (Direct Access Storage Device) (112 disk drives).
- 32 Tape Drives (30,000 tapes)

5.1.3 Input/Output Devices

All data processing follows the same flow pattern of input, processing, and output.

- Input involves collection of data and verification of its accuracy, followed by conversion to machine-readable form so that it can be entered into the data-processing system.
- Processing relates, in order, to the classification, sorting, calculation, summarization, and storage of data.
- Output is the information that is produced by the computer after the processing steps identified above have been completed.

The input/output devices in the USAMSSA environment configuration are:

- Input devices to be used for this system are the three display stations located in DACA-OMP. These are described in more detail in paragreph 5.3.

- Output
  - 2 laser, and 5 impact local printers in USAMSSA
  - DACA-OMP printers (see paragraph 5.3)
  - DACA-OMP display stations (see paragraph 5.3)

5.1.4 Communications Net

Communication nets carry data from one location to another, and are the links permitting transmissions of electrical signals between locations. This system will use the communications link now in use between DACA-OMP and the USAMSSA facilities.

5.2 Support Software Environment

Software refers to the sets of prewritten, standardized computer programs, procedures, and related documentation that are developed for an ADS. Many organizations employ programmers to develop software programs for their internal operations. This approach called "in-house" development allows for programming creativity. On the other hand, it requires significant staff expenditures, and in many instances results in duplicative effort in, and among, organizations. For these reasons, firms specializing in software development have been formed to meet the growing demand for prewritten programs.

Systems programs, or packages, are normally machine-dependent; thus, system programming is normally provided by the manufacturer of the hardware, or, as pointed out above, by specialized programming firms. USAMSSA already has a variety of software packages which will provide multiple user interactive, on-line, query and update service to meet the user's needs. New software required for this system will consist of

programs to format new data, provide output reports/displays and perform minor arithmetic computations.

5.3 Interfaces

The following is a brief description of the means and equipment by which data relating to the P/BS are exchanged between DACA-OMP and the USAMSSA Computer facility.

DACA-OMP has a Four-Phase Systems Inc Data IV/50 remote controller terminal cluster. This is an intelligent terminal system consisting of:[1]

- A Model 5001-99 processor
- Three Model 5115-A display stations
- Two Model 8121 character printers

The IV/50 system is used for both remote data entry and on-line inquiry and retrieval. The IV/50 system has no local storage capability and no batch communications mode. Data are input to the USAMSSA computer data base by using an interactive communications capability with an IBM 3270 protocol. The advantages of this arrangement are:

- The 5001-99 processor contains the terminal's 48K memory and interfaces with the CRT display stations and printers. The 5001-99 has an on-line capability to operate in an interactive mode with discrete data sets (files) resident on the USAMSSA computer. This means that the system has the capability to allow the OCA operator to access the data set and enter changes such as percentage data elements and currency fluctuation; however, the software providing this capability is not in place at this time.

[1]Information extracted from Vol. I, FORDIMS User's Guide, August 1980.

- The Model 5115-A display stations have a large video screen and a separate keyboard. The CRT video screen can display up to twenty-four, 80 character lines at one time.
- The Model 8121 character printer is a low speed printer which the terminal operator can use to produce a hard copy of any data that are displayed on the CRT screen. Thus, after making the changes to the USAMSSA computer work file, the terminal operator can retain a copy for staffing or reference until the USAMSSA input action has been completed.

5.4 Summary of Impacts

It is expected that the organizational, operational, and developmental impacts of the proposed automation civilian manpower costing exhibits on the ADP organization (USAMSSA) will be minimal. Modification of positional responsibilities is not forseen although reorientation of some staff members may be required. It would not appear, on the basis of functions defined in this FD, that there should be a need for additional ADP personnel. It is not anticipated that there will be any changes in the ADP configuration of USAMSSA. Additional requirements for program and data conversion are not known at this time.

5.5 Failure Contingencies

Hardware or software failures of such magnitude, devastation, and duration as to require a fallback to periods of extended manual manipulation and recording procedure probably would occur only as a result of sabotage or war. If the computer center becomes inoperable under such conditions, Continuity Of Operations Plans (COOP) provide for support of automated systems elsewhere.

5.5.1 Restart

In the event of temporary system failure during processing and execution activity, USAMSSA has the software capability to accommodate rapid restart. An example of this capability is the Automated Planning and Execution (APEX) Control System that resides on the USAMSSA mainframe. APEX allows automatic restart without user intervention or

loss of software in case of system failure through its automatic control of the release of job streams.

5.5.2 Backup

"Back-up" refers to redundancy available in the event the primary system fails. The primary system files, data bases, and interactive hardware are maintained on disk files. USAMSSA provides backup by daily dumps from disk to magnetic tape. Thus, the loss of critical operational software would be minimal.

5.5.3 Fallback

If the mainframe operating system at USAMSSA fails, the Continuity of Operations Plans (COOP) will provide temporary alternative processing activities. As stated in paragraph 3.5 batch processing or manual manipulation, rather than an interactive mode, may be used until system capability is restored.

5.6 Security

5.6.1 Data Security Measures

Breaches and penetration of data security are matters of key concern at computer centers. Unauthorized disclosure, destruction, or modification/manipulation of data used by the data processing system could threaten the ability of a center to continue operations.

Various security measures will be instituted to protect the security and integrity of data in the Army budget system.

- The system will have security features built into it so that only certain information can be accessed from each terminal.
- Special codes will be required to access data sets, records, or files.
- Specific portions of the data base will be accessed only by those whose job requirements require such access.
- Scope of access will be proportionat to the user's security clearance and job responsibilities.

5.6.2 USAMSSA Data Security

The USAMSSA computer center has installed a data security system called ACF2--The Access Control Facility--which is an extension of the IBM OS/MVS Operating System that provides data security.[1]

ACF2 is not a data protection system but rather a system that provides for the controlled sharing of data. An algorithmic methodology, much like a program, is used to determine whether access to a specific data set by an individual user should be allowed.

Because ACF2 determines whether an individual user should be allowed access to a data set, it must be able to associate a user's identity with each job or time-sharing session. Each user has a logon Identification (LOGONID) and each LOGONID has a password associated with it. These passwords are kept in an encrypted format which cannot be reversed. If the user forgets the password, the USAMSSA Security Officer cannot tell the user what it is; he can only change.

5.7 Assumptions and Constraints

Several assumptions have been made in developing this FD defining the system requirements and providing the DACA-OMP with a clear statement of the operational capability to be developed for automation of certain budget activity exhibits. It is assumed that:

- There will be an increasing need for the Army to maintain detail cost controls and an audit trail of cost changes.
- The FORDIMS P/BS data base will produce the required outputs.
- The VFDMIS will replace the FORDIMS and will be designed to provide the data now furnished by P/BS.

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[1]Extracted from the ACF2-The Access Control Facility User's Guide, Modified by USAMSSA (18 November 1981), developed by Schrager, Klemens, and Krueger, Inc.

SECTION 6

COST FACTORS

6.1 Introduction

The purpose of this section is to provide a summary of the cost factors associated with the Automation of the Army Budget Activities for Civilian Personnel. The cost factors shall occur in three system phases:

- System Development
- System Implementation
- System Operation

6.2 System Development Costs

Developmental effort will be required to generate the necessary custom programs for the automation of civilian personnel budget reports.

Developmental effort also is required to design screen formats, help function formats, and specify procedures for data base maintenance. In addition, instructions and system documentation must be produced during the development phase.

The required computer services also shall be considered. It is expected that this development effort will require four person-weeks. The skill categories and person-weeks required for this task are:

Senior Analyst/Programmer	1
Junior Programmer	1-1/2
Technical Writer	1
Word Processor Specialists	1/2
Total Weeks	4

The development effort should not exceed one technical person-month.

6.3 System Implementation Costs

The initial implementation costs involve specifying the data base structure; and loading pre-defined tables, screen formats, and application programs. Testing of the operating system and application programs shall be performed during implementation. After software development has finished, functional personnel shall receive approximately four hours of informal training in concept design and hands-on training for manipulation of the CRT and terminal operations. All training shall be accomplished on-site prior to full utilization of the system. No additional personnel will be required to operate the system as existing operational and analytical personnel presently functioning in civilian manpower costing activities shall be trained to operate the proposed system. Impact of the new system on USAMSSA facilities will be negligible. There are no additional implementation costs anticipated with respect to the user terminal.

6.4 System Operation Costs

The continuing operations-related costs will involve those currently in being for the contractor costs for the user terminal already in place. It is recommended that these services continue for the fully automated system.

SECTION 7

SYSTEM DEVELOPMENT PLAN

Development of the civilian manpower costing ADS will generally follow the system development plan for the "OP-32 Automated Data System" (Report 1398-01-83-CR), General Research Corporation, McLean, VA, 6 September 1983. It will be designed and developed for conversion to VFDMIS after implementation of that system.

APPENDIX A

WORK STATEMENT

SECTION C - DESCRIPTION/SPECIFICATIONS

C-1. INCORPORATION OF TECHNICAL PROPOSAL

(a) The contractor shall furnish the necessary personnel, materials, facilities and other services as specified in the contractor's technical proposal titled "Operations Guide and Supporting Displays For The Army Budget Activities For Civilian Personnel", Proposal No. OP-64004, dated 19 August 1983, a copy of which is in the possession of both parties to this contract, which is hereby incorporated by reference with the same force and effect as if set forth in full text.

(b) In the event of an inconsistency between the provisions of this contract and the technical proposal, the inconsistency shall be resolved by giving precedence in the following order: (i) the contract (excluding the technical proposal); and then (ii) the technical proposal.

SECTION C - CONTINUED

C-2. BACKGROUND

This research study is to develop workflow diagrams for the Civilian Manpower Casting Process, develop remote console CRT Capability for accessing, displaying and updating civilian manpower data and documenting civilian manpower casting techniques.

C-3. TASKS

The contractor shall perform the following tasks to develop an operations guide and the supporting displays for the Army Budget Activities for Civilian Personnel.

Task I. Civilian Manpower Casting Process

The Contractor shall develop work flow diagrams with appropriate narrative information which illustrates the civilian manpower casting process by budget event.

Task II. CRT Screens

The Contractor shall prepare CRT Screens used to support the civilian manpower casting functions. The screens shall result in providing to review existing data or to input new data as appropriate, pertaining to various phases of the civilian manpower casting process.

Task III. Civilian Manpower Operations Guide

The Contractor shall provide an easy-to-understand operations guide that will document its civilian manpower operations procedures, will assist uninformed personnel to learn these procedures and provide a ready reference.

C-4. REPORTS

The Contractor shall submit the following written report in accordance with the delivery schedule set forth in Section F.

a. Progress Report: Two (2) copies of a Progress Report shall be submitted by the Contractor to the Contracting Officer's Representative (COR) by the 15th of the second month after date of award. The report shall state the major accomplishments, problems encountered, and the amount of funds expended.

SECTION C - CONTINUED

(b) The heading of all reports shall contain the following information:

CONTRACT NUMBER	NAME OF CONTRACTOR
CONTRACT EXPIRATION DATE	CONTRACTOR'S PROJECT DIRECTOR
SHORT TITLE OF CONTRACT WORK	PHONE NUMBER

C-5. DISCLAIMER STATEMENT

All reports resulting from this study will contain the following disclaimer statement on the cover of such reports:

> "The views, opinions, and findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other official documentation".

SECTION D - PACKAGING AND MARKING

D-1. PACKAGING AND MARKING

All items shall be preserved, packaged, packed and marked in accordance with best commercial practices to meet the packing requirements of the carrier, and insure safe delivery at destination.

D-2. PACKAGING AND MARKING OF CLASSIFIED ITEMS

(a) CONFIDENTIAL or SECRET material will be packed to conceal it properly and to avoid suspicion as to contents, and to reach destination in satisfactory condition. Internal markings or internal packaging will clearly indicate the classification. NO NOTATION TO INDICATE CLASSIFICATION WILL APPEAR IN EXTERNAL MARKINGS. (See paragraph 17 of the Industrial Security Manual for Safeguarding Classified Information, DoD 5220.22-M).

(b) CONFIDENTIAL or SECRET documents will be inclosed in two (2) opaque envelopes or covers. The inner envelope or cover containing the documents being transmitted will be addressed, return addressed, and sealed. The classification of the documents being transmitted will be clearly marked on the front and back of the inner container. The classified documents will be protected from direct contact with the inner cover by a cover sheet or by folding inward. For SECRET documents, a receipt form identifying the addresser, addressee, and documents will be inclosed in the inner envelope. CONFIDENTIAL documents will be covered by a receipt only when the sender deems it necessary. The inner envelope or cover will be inclosed in an opaque outer envelope or cover. The classification markings of the inner envelope should not be detectable. The outer envelope will be addressed, return addressed, and sealed. NO CLASSIFICATION MARKINGS WILL APPEAR ON THE OUTER ENVELOPE OR COVER.

SECTION E - INSPECTION AND ACCEPTANCE

E-1. INSPECTION AND ACCEPTANCE AT DESTINATION

Inspection and acceptance of the supplies or services to be furnished hereunder shall be made at destination by the receiving activity.

SECTION F - DELIVERIES OR PERFORMANCE

F-1. TERM OF CONTRACT

The term of this contract is from the effective date of the contract through 25 May 1984.

F-2. REPORTS AND OTHER DELIVERABLES

Delivery of all reports and other deliverables shall be made to the address specified in Section G in accordance with the following:

ITEM NO.	DESCRIPTION	DATE (On or Before)
0002AA	Indexed Set of Work Diagrams	12 March 1984
0002AB	CRT Screen Formats	09 April 1984
0002AC	Progress Report	02 April 1984
0002AD	Civilian Manpower Operations Guide (Final Report)	25 May 1984

SECTION G - CONTRACT ADMINISTRATION DATA

G-1. VOUCHERS

Vouchers, identified by contract number, with supporting statements, shall be submitted for review and provisional approval to the cognizant audit agency listed below:

DCAA, Beltway Branch Office
2020 Centre Blvd.
Germantown, MD 20874

SECTION G - CONTINUED

G-2. DELEGATION OF AUTHORITY FOR CONTRACT ADMINISTRATION

The DCASMA, Baltimore, 300 East Joppa Road, Rm. 200, Towson, MD 21204 is hereby designated as the authorized representative of the Contracting Officer for purpose of administering this contract in accordance with current directives.

G-3. CONTRACTING OFFICER'S REPRESENTATIVE (COR)

(a) The Contracting Officer's Representative (COR) under this contract is Mrs. Jean S. Rogers, Room 3B-666, The Pentagon, Washington, D.C. 20310, Tel: 697-7669.

(b) The COR is not authorized to change any of the terms and conditions of the contract. Changes shall be made only by the Contracting Officer by properly signed written modification to the contract.

SECTION H - SPECIAL PROVISIONS

H-1. ALLOWABLE COST

(a) Allowable Cost. The estimated cost of the contractor's performance is shown in Section B.

(b) Fixed Fee. In addition to the "allowable" cost the government shall pay to the contractor a Fixed Fee, as set forth in Section B, subject to the withholding provided for in DAR 7-203.4, Allowable Cost, Fixed Fee and Payment. This Fixed Fee may be paid as it accrues in monthly installments, in amounts which are proportionate to the total estimated cost paid unless the Contracting Officer determines that the contractor's performance is faulty.

(c) The contractor shall, to the extent of his ability, acquire materials and services at the most advantageous prices available with due regard to securing timely delivery of satisfactory materials and take all cash and trade discounts, rebates, allowances, credits, salvage commissions and bonifications.

(d) It is understood and agreed that subject to those clauses of the General Provisions entitled Limitation of Costs or Limitation of Funds and Allowable Costs, Fixed Fee, and Payment, the following shall be considered as allowable items of cost under the contract when incurred or paid by the contractor and when necessary and required and used for the performance of work hereunder. This clause does not preclude the allowance of other costs allowable under the Defense Acquisition Regulation, Section XV.

SECTION H - CONTINUED

(i) Indirect Costs.

For the period of this contract, subject to the establishment of final annual overhead rate(s), the contractor will be paid such costs at billing rate(s) established by the Contracting Officer or the auditor, in accordance with paragraph (h) of DAR 7-203.4, Allowable Cost, Fixed Fee, and Payment.

(ii) Travel and Subsistence.

Reasonable subsistence shall be allowed in accordance with the Contractor's established and Government approved policy for transportation for personnel employed in the performance of this contract while in travel status provided such travel is necessary for the performance of this contract; and provided that, expenses for transportation hereunder by motor vehicle other than common carrier or rented automobile shall be reimbursed on a reasonable actual expense basis, plus any toll or ferry charges. The difference in cost between first-class air accommodations and less than first-class air accommodations is unallowable except when less than first-class accommodations are not reasonably available to meet mission requirements. Reasonableness shall be ascertained by a review of all facts pertaining to the specific cost by the Contracting Officer. Should transportation and subsistence expenses be incurred concurrently in connection with the performance of more than one contract, such expenditures shall be allocated on an equitable basis to the contracts involved, such allocation to be based on a review of all pertinent facts concerned with the particular trip.

(iii) Reproduction Costs.

Costs of "duplicating" as defined in Printing and Binding Regulations published by the Joint Committee on Printing of the Congress of the United States, current issue. Allowable reproduction and duplicating usually includes that produced from stencils, masters, and mats used on single unit duplicating equipment not larger than 11 by 17 inches with a maximum image of 10-3/4 by 14-1/4 inches, provided that, not more than 5,000 production units shall be produced of any page and that items consisting of multiple pages will not exceed 25,000 production units in the aggregate.

(iv) Special Costs.

Special items which have been certified in writing by the Contracting Officer as constituting part of the contractor's undertakings hereunder.

H-2. FACILITIES CAPITAL COST OF MONEY

Notwithstanding the provisions of DAR 15-205.50, the contractor agrees that facilities capital cost of money is not an allowable cost under this contract.

SECTION H - CONTINUED

H-3. MILITARY SECURITY CLASSIFICATION

Military security requirements in the performance of this contract shall be maintained in accordance with the DD Form 254 contained in Section J. The highest classification involved in the performance of this contract is SECRET. This contract document is unclassified.

H-4. CLASSIFIED INFORMATION

The contractor will not use any electrical information processing equipment in his possession for the purpose of processing or transmitting classified information under this contract without the written permission of the Contracting Officer.

H-5. DISSEMINATION OF INFORMATION

There shall be no dissemination or publication, except within and between the contractor and any subcontractors, of information developed under this contract or contained in the reports to be furnished pursuant to this contract without prior written approval of the COTR or of the Contracting Officer.

H-6. INSURANCE SCHEDULE

The contractor shall maintain the types of insurance and coverage listed below.

TYPE OF INSURANCE	MINIMUM AMOUNT
(i) Workmen's Compensation and all occupational disease Law	As required by State
(ii) Employer's Liability including all occupational disease when not so covered in Workmen's Compensation above	$100,000 per accident
(iii) General Liability (Comprehensive) Bodily Injury per occurrence	$300,000
(iv) Automobile Liability (Comprehensive)	
Bodily Injury per person	$100,000
Bodily Injury per occurrence	$300,000
Property Damage per accident	$ 10,000

H-7. CHANGE IN KEY PERSONNEL

The contractor shall notify the Contracting Officer prior to making any change in the personnel identified in the proposal as key individuals to be assigned for participation in the performance of this contract. The contractor must demonstrate that the qualifications of the prospective personnel are equal to or better than the qualifications of the personnel being replaced.

APPENDIX B

WORK STATEMENT MODIFICATION

Proposal No. OP-64011/R-1, dated 14 March 1984, copies of which are in the possession of both parties to this contract, which is hereby incorporated by reference with the same force and effect as if set forth in full text.

THIRD: Article C-3. TASKS: Changed to read as follows:

TASK I. Civilian Manpower Costing Process (revised)

The contractor shall perform tasks to develop an operations guide with the supporting displays and document new reports required for an integrated reporting system.

TASK II. CRT Screens (No Change)

The contractor shall prepare CRT Screens used to support the civilian manpower costing functions. The screens shall result in providing to review existing data or to input new data as appropriate, pertaining to various phases of the civilian manpower costing process.

TASK III. Civilian Manpower Operations (added)

The contractor shall provide an easy-to-understand operations guide that will document OCA civilian manpower operations procedures, assist uninformed personnel to learn these procedures and provide a ready reference. This guide shall be revised to reflect new and/or modified civilian manpower reports and procedures.

TASK IV. An Analysis of Civilian Manpower Cost Reports (added)

The contractor shall provide a detailed analysis of current civilian manpower cost reports to eliminate redundancy and out-of-date requirements.

TASK V. Revision and Update of Existing Reports (added)

The contractor shall update current civilian manpower report formats by adding new data elements. The report formats will be revised to lay out the data more conveniently and/or efficiently.

TASK VI. Development of New Reports (added)

The contractor shall develop the new civilian manpower reports or report formats that will meet the changed data requirements identified in Task IV.

TASK VII. Preparation of Functional Descriptions (added)

The contractor shall develop the functional descriptions and formats necessary to automate the reports that are currently prepared manually by the Program Budget Division of OCA (DACA-OMP)

TASK VIII. Finalize Documentation (added)

The contractor shall update the workflow diagrams developed during Task I and the Civilian Manpower Operations Guide developed during Task III to incorporate changes in reports and procedures.

FOURTH: Deliveries or Performance, Article F-1. Term of Contract: Changed to read:

The term of this contract is from the effective date through 26 December 1984.

FIFTH: Article F-2. Reports and Other Deliverables: add the following:

ITEM NO	DESCRIPTION	QTY	DATE (On or Before)
0002AE	List of Reports and Data Elements for Revision	25 cys	21 September '84
0002AF	Set of Revised Existing Report Formats	25 cys	16 November '84
0002AG	Set of New Report Formats	25 cys	07 December '84
0002AH	Functional Description for Reports Automation	25 cys	07 December '84
0002AI	Revision for Indexed Set of Work Diagrams	25 cys	14 December '84
0002AJ	Civilian Manpower Operations Guide	25 cys	26 December '84

----------NOTHING FOLLOWS----------

END

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